GPRA

Government Performance Results Act

FY 1999 Performance Report

FY 2000 Performance Plan

FY 2001 Draft Performance Plan

TABLE OF CONTENTS

Appendices to the Performance Plan

INTRODUCTION

The Agency for Health Care Policy and Research was reauthorized as the Agency for Healthcare Research and Quality (AHRQ) in December 1999 under P.L. 106-129, the Healthcare Research and Quality Act of 1999. AHRQ, a part of the U.S. Department of Health and Human Services, is the lead agency charged with supporting research designed to improve the quality of health care, reduce its cost, and broaden access to essential services. AHRQ's broad programs of research bring practical, science-based information to medical practitioners, health systems, and to patients/consumers and other health care purchasers and policymakers.

The AHRQ FY 2001 performance plan follows the same basic format of previous performance plans. Part 1 describes the Agency's mission, strategic goals, and programs and includes the basic frameworks that the Agency uses to accomplish its core business. These frameworks include the Cycle of Research, the Research Pipeline, and the three basic Agency customers, the needs of which determine the direction of Agency programs. Part 2 then presents the Agency's six performance goals.

The structure of the performance goals and measures is aligned with two of the Agency's three budget lines. The two budget lines, Research on Health Care Costs, Quality, and Outcomes and Medical Panel Expenditure Surveys are where the Agency programs are funded. The third budget line, Program Support, has been removed from the performance goals in the AHRQ FY 2001 performance plan. The measures previously reported for Program Support focused on internal management issues for contracts management and information system development. We are dropping the measures because they do not rise to the level of being one of the "critical few" measures that should be reported by the Agency in the GPRA plan. The measures continue to be important, however, and remain in place for internal accountability in the Office of Management Operations Plan and performance plans for the managers and staff.

PART 1 – AGENCY CONTEXT FOR PERFORMANCE MEASUREMENT

1.1 Agency Vision, Mission, and Long-Term Goals

Vision

The vision of the Agency for Healthcare Research and Quality (AHRQ) is to foster health care research that helps the American health care system provide access to high quality, cost-effective services; be accountable and responsive to consumers and purchasers; and improve health status and quality of life.

Mission

The Agency's mission is enhance the quality, appropriateness, and effectiveness of health services, and access to such services, through the establishment of a broad base of scientific research and through the promotion of improvements in clinical and health system practices, including the prevention of diseases and other health conditions.

The Agency promotes health care quality improvement by conducting and supporting health services research that develops and presents scientific evidence regarding all aspects of health care. Health services research addresses issues of "organization, delivery, financing, utilization, patient and provider behavior, quality, outcomes, effectiveness and cost. It evaluates both clinical services and the system in which these services are provided. It provides information about the cost of care, as well as its effectiveness, outcomes, efficiency, and quality. It includes studies of the structure, process, and effects of health services for individuals and populations. It addresses both basic and applied research questions, including fundamental aspects of both individual and system behavior and the application of interventions in practice settings."[1]

Strategic Goals

Research that promotes the improvement of health care quality will be the Agency's highest priority during the next few years. Accordingly, the Agency has identified three strategic goals, each of which will contribute to improving the quality of health care for all Americans.

AHRQ Goal 1. Support Improvements in Health Outcomes

The field of health outcomes research studies the end results of the structure and processes of health care on the health and well-being of patients and populations.[2] Policymakers in the public and private sectors are also concerned with the end results of their investments in health care, whether at the individual, community, or population level. An important component of AHRQ research is the conceptual and methodologic development of tools for measuring outcomes and methods to effectively convey information about outcomes to AHRQ customers. A high priority for AHRQ's outcomes

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[1] Eisenberg JM. Health Services Research in a Market-Oriented Health Care System. *Health Affairs*, Vol. 17, No. 1:98-108, 1998.

[2] Institute of Medicine, 1996

research is conditions that are common, expensive, and/or for which significant variations in practice or opportunities for improvement have been demonstrated. An important research focus will be the type of delivery system or processes by which care is provided and their effects on outcomes.

AHRQ Goal 2. Strengthen Quality Measurement and Improvemen

AHRQ's second research goal includes developing and testing measures of quality, as well as studies of the best ways to collect, compare, and communicate these data. A key focus under this goal is developing and implementing the knowledge required to understand and address the causes of medical errors to increase patient safety. To facilitate the use of this information in the health care system, the Agency focuses on research that determines the most effective ways to improve health care quality, including promoting the use of information on quality through a variety of strategies, such as information dissemination and assessing the impact on health care organization and financing.

AHRQ Goal 3. Identify Strategies To Improve Access, Foster Appropriate Use, and Reduce Unnecessary Expenditures

Adequate access to health care services continues to be a challenge for many Americans. This is particularly so for the poor, the uninsured, members of minority groups, rural residents, and other vulnerable populations. In addition, the changing organization and financing of care has raised new questions about access to a range of health services, including emergency and specialty care. At the same time, examples of inappropriate use of care, including overutilization and misuse of services, continue to be documented. Through ongoing development of nationally representative and more specialized databases, the production of public use data products, and research and analyses conducted by AHRQ staff and outside researchers, the Agency addresses critical policy issues pertaining to the access to, cost, and use of health care.

Use of the Strategic Plan

The strategic plan will serve as the road map for AHRQ activities for the next 3-5 years. After an extensive planning process, the Agency's strategic plan was released in December 1998 and has been made widely available for comment. The plan was published in the *Federal Register*, posted on the Agency website, printed in a peer reviewed publication, and mailed to hundreds of organizations soliciting comments and ideas for programmatic investments to achieve the stated mission.

In April 1999, the Agency published a "Request for Ideas" (RFI) soliciting ideas from the Agency's customers and the general public for priorities in the context of the Strategic Plan. During its three meetings yearly of the National Advisory Council of the Agency, discussions have focused on the priorities articulated in the plan, allowing substantial guidance from the Council to be reflected in the initiatives proposed in this budget submission. Additionally, the Agency received input on various aspects of its research priorities through over 20 expert and user group meetings.

AHRQ assesses the progress made toward achieving each of the goals as part of the annual planning and budget development process. These assessments are integral to AHRQ’s compliance with the Government Performance and Results Act of 1993 and provide the backdrop against which the next year’s activities are planned.

> “... The Agency should maintain, in the public domain, the tools that will be needed to assess quality of care...This will not be done by the private sector because they cannot afford the amount of money to update continuously the science and put the quality tools in the public domain.” – Robert Brook, Vice President & Director, RAND Health
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> “Access, for example, should be defined as having access to the appropriate provider at the appropriate time. [...] it is valuable to understand the issue of access according to the geography of the individual patient.” – *Woodrow M. Myers, Jr., Director, Health Care Management, Ford Motor Company*
>
> “There is an important need for more research targeted at improving the quality of care for [elderly and disabled] populations.” – *David Seckman, Vice President, American Health Care Association*
>
> “NACHRI strongly supports your highest priority for research that promotes quality improvement. The work you have done in this area to date is helpful to us and other

1.2 Organization, Programs, Operations, and Strategies

AHRQ Organization

General program direction and strategic planning is accomplished through the collaboration of the Office of the Director (with its three administrative offices) and six Research Centers, which have programmatic responsibility for portions of the Agency’s research portfolio. The Agency has completed a 12-month process of linking the Agency’s planning processes to budget planning and performance management through GPRA. This involved updating the Agency strategic plan using staff and customer input, directly linking budget development to the planning process, implementing strategic and annual operations plans for each office and center, and developing individual employee performance plans that link directly to the Agency and office/center plans.

In 1999, each Office and Center (O/C) created its own strategic and operations plans. The operations plans identified critical success factors and performance measures that clearly illustrated how each O/C would contribute to AHRQ’s achieving its strategic and annual GPRA plan goals, as well as internal O/C management goals. From October 1999 through January 2000, the Office and Center Directors and their staffs have been reviewing their accomplishments in relation to the 1999 operations plans and drafting the 2000 plans. The results of the 1999 reviews contributed significantly to the FY 1999 GPRA Performance Report.

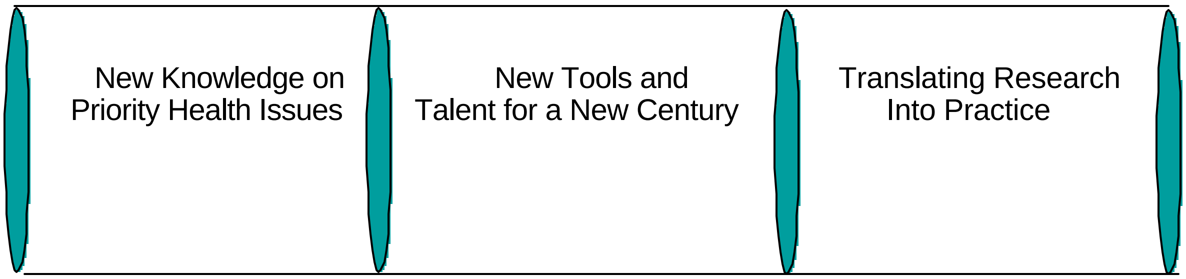
As a result of the increased emphasis on strategic planning, evaluation activities have taken on greater focus. Evaluations are used to demonstrate the impact of Agency work on the health care system, to test and improve the usefulness and usability of Agency products, and to assess the effectiveness and efficiency of internal operations. The results of the evaluation studies are used to make planning, budget, and operations decisions in subsequent years, as well as for GPRA reporting purposes. Five evaluations of significant AHRQ programs are reported on in Goal 4 of the FY 1999 GPRA Performance Report.

AHRQ Programs, Operations, and Strategies

The main focus of AHRQ research is on the delivery of health care and identifying ways to measure and improve it. Most of the Agency's research portfolio consists of extramurally funded work from leading universities and other research institutions throughout the Nation. The portfolio also contains an impressive body of intramural research. Issues related to the quality, cost and use of, as well as access to, health care are studied through extramural and intramural research. Extramural research is the primary source of studies on outcomes and effectiveness. AHRQ sponsored and conducted research measures the effectiveness of the services that deliver the preventive, diagnostic, and therapeutic care, compares them with existing practice, and evaluates the ability of the health care system to deliver them effectively.

In FY 2001, AHRQ will continue its commitment articulated in the FY 2000 budget request to *"ensure that the knowledge gained through health care research is translated into measurable improvements in the American health system"*. Steps taken in FY 2000 include a new program to work with funded researchers throughout the country to take important new findings from research and get them in the hands of the organizations and individuals where they can improve clinical practice and health care delivery. Indeed, the organizing principle first articulated in the FY 2000 request of a pipeline of investment is now a central planning tool for the Agency and the way we communicate with our customers and partners (including researchers). This pipeline of investment, called the Research Pipeline follows.

The Research Pipeline



The AHRQ portfolio reflects a "pipeline" of activities that together build the infrastructure, tools, and knowledge for improvements in the American health care system. This pipeline begins with the funding of new research that answers important questions about what works in American health care (*New Knowledge on Priority Health Issues*).

The second step in the pipeline (*New Tools and Talent for a New Century*) is focused on more applied research and translates new knowledge into instruments for measurement, databases, informatics, and other applications that can be used to assess and improve care.

The final step of the pipeline is where the first two investments come together by closing the gap between what we know and what we do *(Translating Research Into Practice*). AHRQ funds research and demonstrations to translate the knowledge and tools into measurable improvements in the care Americans receive.

AHRQ Audiences

Levels of Decisionmaking				
GOAL AREAS		**Clinical Services**	**Health Systems**	**Public Policy**
	Outcomes			
	Quality			
	Access, Cost, & Use			

Agency activities begin and end with the end-users of Agency research. AHRQ customers require evidence-based information to inform health policy decisions. Health policy choices in this context represent three general levels of decisionmaking:

Clinical Policy Decisions – Information is used every day by clinicians, consumers, patients, and health care institutions to make choices about what works, for whom, when, and at what cost.

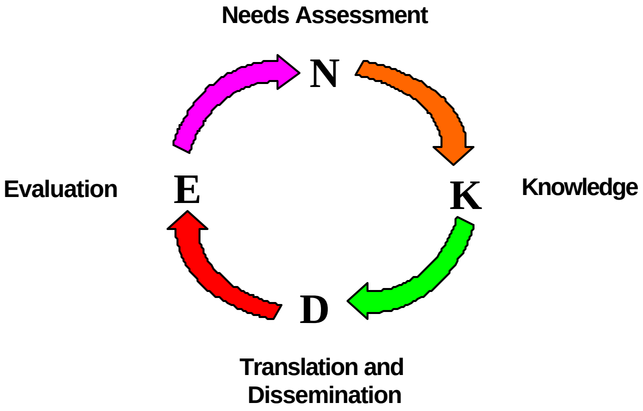
Health Care Organizations Policy Decisions – Health plan and system administrators, policymakers, and purchasers are confronted daily by choices on how to improve the health care system's ability to provide access to and deliver high-quality, high-value care.

Public Policy Decisions – Information is used by policymakers to expand their capability to monitor and evaluate the impact of system changes on outcomes, quality, access, cost, and use of health care and to devise policies designed to improve the performance of the system. These decisions include those made by Federal, State, and local policymakers and those that affect the entire population or certain segments of the public.

AHRQ Cycle of Research

Producing meaningful contributions to the Nation and to research on health care requires continuous activity focused on iterative improvement in priority setting, on developing research initiatives, and on research products and processes. The following research cycle describes the processes AHCPR uses to conduct its ongoing activities in order to make the most productive use of its resources.

Cycle of Research



Needs Assessment. Agency activities begin and end with the end-users of Agency research. The research agenda is based on an assessment of gaps in the knowledge base and on the needs of patients, clinicians, institutions, plans, purchasers, and State and Federal policymakers for evidence-based information. Input gained during the needs assessments feeds directly into the research initiatives undertaken by the Agency, as well as the products developed from research findings to facilitate use in health care.

Knowledge Creation. AHRQ will support and conduct research to produce the next generation of knowledge needed to improve the health care system. Building on the last 10 years of investment in outcomes and health care research, AHRQ will focus on national priority areas for which much remains unknown.

Translation and Dissemination. Simply producing knowledge is not sufficient; findings must be useful and made widely available to practitioners, patients, and other decisionmakers. The Agency will systematically identify priority areas for improving care through integrating findings into practice and will determine the most effective ways of doing this. Additionally, AHRQ will continue to synthesize and translate knowledge into products and tools that support its customers in problem-solving and decision making. It will then actively disseminate the knowledge, products, and tools to appropriate audiences. Effective dissemination involves forming partnerships with other organizations and leveraging resources.

Evaluation. Knowledge development is a continuous process. It includes a feedback loop that depends on evaluation of the research's utility to the end user and impact on health care. In order to assess the ultimate outcomes of AHRQ research, the Agency will place increased emphasis on evaluation of the impact and usefulness of Agency-supported work in health care settings and policymaking. The evaluation activities will include a variety of projects, from smaller, short-term projects that assess process, outputs, and interim outcomes to larger, retrospective projects that assess the ultimate outcomes/impact of AHRQ activities on the health care system.

Priority Populations

Health services research has consistently documented the persistent, and at times great, disparities in health status and access to appropriate health care services for certain groups. AHRQ will sponsor and conduct research, evaluations, and demonstrations on health care for priority populations including racial and ethnic minority groups, women, children (including adolescents), the elderly, people with special needs (disabilities, chronic illness, end-of-life issues), low income populations and on health care delivery issues for inner city and rural (including frontier) areas. AHRQ will focus on developing science-based information to address issues of access to care, outcomes, quality, and the cost and use of services for each of these priority populations.

Training

AHRQ assures a strong infrastructure for health services research through investments in training and the support of young investigators. Within its training activities, AHRQ is committed to address shortages in the number of researchers addressing priority populations such as racial and ethnic minorities, residents of rural areas, and children. AHRQ is also instituting training programs to build research capacity in states that have not traditionally been involved in health service research, but are interested in developing their research infrastructure.

> "The education and training of graduate and undergraduate students among are among the most important duties and durable legacies of the research agencies."
>
> *Evaluating Federal Research Programs:*
> *Research and the Government Performance and Results Act.*
> Institute of Medicine, 1999

1.3 Partnerships and Coordination

AHRQ is not able to accomplish its mission alone. Partnerships formed with the agencies within the Department of Health and Human Services, with other components of the Federal Government, with State and local governments, and with private-sector organizations play a critical role in enabling the Agency to achieve its goals. The development of partnerships is practical because it enhances coordination, eliminates unnecessary duplication, and leverages the Agency's resources. It also meets the mandates of the Agency's reauthorization, P.L. 106-129, the Healthcare Research and Quality Act of 1999, which stresses the need for the Agency to serve as a "science partner" to public and private sector efforts to improve the quality and safety of our health care delivery systems.

Partnerships take many forms. Conceptually, they reflect the Agency's "pipeline of research" and are designed to assist the Agency in achieving all of its goals related to the "cycle of research." Most of the Agency's partnerships are related to:

- the development of new research knowledge – these partnerships can involve identification of research needs and agenda-setting, co-funding of research projects, and efforts that clarify the research niche that AHRQ and its research partners address and the "hand-off" between AHRQ and its research partners;

- the development of tools, measures, and decision support mechanisms – in these partnerships AHRQ helps to develop tools and other mechanisms that enable its partners and customers to use scientific evidence to guide their decisionmaking; and

- the translation of research into practice – these partnerships focus on the translation and dissemination of research findings, technical assistance, and evaluation of whether innovations in practice actually improve the quality and safety of the health care delivery system and the best methods for speeding the adoption of knowledge about what works.

Within HHS and the Executive Branch

Development of New Knowledge. In the area of building new research knowledge, the focus of AHRQ's research on identifying ways to improve the delivery of health care as well as on prevention, and health care outcomes, effectiveness, and quality provides an important complement to NIH's focus on the identification of mechanisms of disease and the development of interventions to improve the prevention, diagnosis, and treatment of disease and disability.[3] Similarly, AHRQ's focus on the general health care delivery system complements the CDC's emphasis on the public health care system and the focus of agencies like SAMHSA, which tend to focus on the more specialized settings in which services (in this case, substance abuse and mental health services) tend to be furnished. This complementary role is reflected in:

- co-funding individual research projects (e.g. where another research agency may fund the more fundamental research aspects of a study and AHRQ will fund the effectiveness or cost-effectiveness component);
- joint research solicitations (recent examples include: Building

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[3] NIH web site

Interdisciplinary Research Careers in Women's Health (BIRCWH) Career Development Programs [involving 14 other institutes/offices], research on the effectiveness and/or cost-effectiveness of child mental health and substance abuse treatment interventions and guideline-based treatment strategies for children, adolescents, and youth in the general health sector [with 2 NIH Institutes and SAMHSA]; and research on improved care for those at the end of life [in partnership with 7 NIH institutes and centers].

< AHRQ and CDC staff are working together to ensure that the work of the Task Force on Community Preventive Services, sponsored by CDC, and the US Preventive Services Task Force (USPSTF), sponsored by AHRQ, are complementary. Together, the USPSTF Guide to Clinical Preventive Services and the CDC Guide to Community Preventive Services, will outline the most effective ways to prevent disease and promote health across all settings, from doctors and nurses offices, to schools, workplaces, community organizations, health organizations, public health departments and state policy makers.

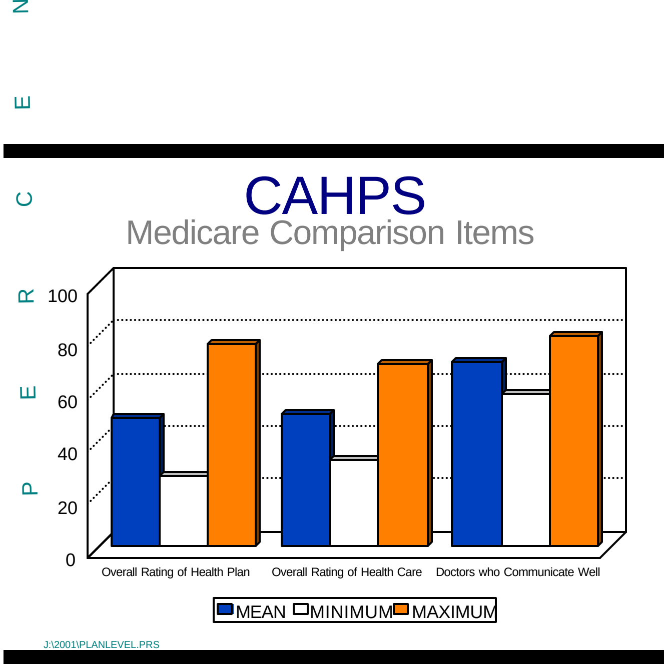
< AHRQ, the Department of Labor, and other agencies participating in the QuIC recently held an expert meeting, *Effect of Working Conditions on the Quality of Care,* that reviewed existing evidence regarding the role of working conditions in health care institutions and began development of a research agenda that needs to be addressed by multiple departments and agencies.

Development of Tools, Measures, and Decision Support Mechanisms. AHRQ is increasingly working in partnership with other agencies and departments to develop the tools, measures, evidence, and other decision supports they need to carry out their missions. Examples include:

< undertaking technology assessments on behalf of HCFA which are then used as the basis for coverage decisions for the Medicare program.

< an increasing number of agencies (such as NIH, HCFA, and the VA) are working closely with AHRQ's Evidence-based Practice Centers to develop assessments of existing scientific evidence to guide their work (e.g. an evidence report on "Medical Informatics and Telemedicine Coverage Under the Medicare Program" is under development for HCFA by one of the AHRQ Evidence-based practice Centers).

< Development of the Consumer Assessment of Heath Plans (CAHPS ®) that is now being used by OPM for federal employees, states for Medicaid recipients and state employees, and by HCFA for Medicare managed care enrollees. HCFA has now funded the survey twice to approximately 130,000 beneficiaries each time. The results from these surveys are made available to 39 million beneficiaries to help them with their choice of health plan.



Translation of Research into Practice. Examples of partnerships to translate research into practice:

- Medicare's Peer Review Organizations have undertaken at least 36 quality improvement projects drawing upon AHRQ's outcomes and effectiveness research findings and the quality measures and methods for enhancing the quality of health care developed by AHRQ.
- AHRQ's Director serves as the Operating Chair of the Quality Interagency Coordination (QuIC) Task Force, composed of all Federal agencies involved in the delivery of health care or the conduct of health care research. The QuIC identifies opportunities for collaboration and coordination among DHHS and non-DHHS agencies in improving the quality of patient care.
- The U.S. is partnering with Russia under the U.S. Russian Joint Commission on Economic and Technological Cooperation. One area of focus is the *Access to Quality Health Care* priority area where the U.S. and Russia are involved in projects to improve quality of care by developing measures of clinical practice improvements and by helping clinicians improve primary care practice through the use of evidence-based medicine. AHRQ has a major leadership role in this initiative, working with partners such as CDC, HRSA, SAMHSA, NIH, NCHS and other non-government partners.

Examples of Private Sector and State Partners

Development of New Knowledge. AHRQ is increasing its efforts to leverage its resources by identifying external partners to co-fund research:

- The most recent example is a grant program on the impacts of public insurance programs and delivery systems on access to and quality of care for low income children that is being supported jointly by AHRQ and the David and Lucille Packard Foundation.
- Another ongoing funding partnership, with the American Association of Health Plans Foundation, provides $8.5 million in joint funding to support six research teams that are examining how particular

managed care policies and practices, such as protocols governing the referral of patients to medical specialists and arrangements for paying physicians, affect the quality of care for patients living with chronic illnesses.

Development of Tools, Measures, and Decision Support Mechanisms. Partnerships related to the development of tools, measures, evidence, and other decision supports include:

- National Guideline Clearinghouse. This is a partnership with the American Medical Association and the American Association of Health Plans to operate an Internet Web site that makes evidence-based clinical practice guidelines and related abstract, summary, and comparison materials widely available to health care professionals.
- Healthcare Cost and Utilization Project. This is an ongoing partnerships with 22 State and private data organizations to build a network of standardized databases that can be tapped for use by Federal and State policymakers and private sector decision makers.
- National Measures Clearinghouse. AHRQ is sponsoring the development of a National Measures Clearing house in partnership with public and private measure developers and users such as the American Health Quality Association, American Hospital Association, Joint Commission on Accreditation of Healthcare Organizations, and the National Committee for Quality Assurance.

Translation of Research into Practice. Examples of partnerships to translate research into practice include:

- 14 companies and organizations have joined AHRQ in disseminating its Quality Navigational Tool designed to assist individuals apply research findings on quality measures and make major decisions regarding health plans, doctors, treatments, hospitals, and long-term care (e.g. Midwest Business Group on Health, IBM, United Parcel Service, National Consumers League).
- 14 organizations/companies have joined AHRQ in disseminating its smoking cessation materials (e.g. American Cancer Society, American Academy of Pediatrics, Michigan Department of Community Health, Utah Tobacco Prevention and Control Program)
- 9 companies and organizations are reprinting and disseminating AHRQ's Put Prevention into Practice materials (e.g. American Association of Family Physicians, Texas Department of Health).
- The Director or senior staff serve as science advisors to a number of public-private sector initiatives to improve the quality and safety of patient care, such as the Joint Commission on the Accreditation of Healthcare Organizations, the National Committee on Quality Assurance, the American Medical Association, the National Patient Safety Foundation, and the National Forum on Quality Measurement and Reporting.

1.4 Summary FY 1999 Performance Report: Accountability through Performance Measurement

AHRQ is in the second phase of its strategic planning initiative to fully integrate the Agency's planning processes with budget development and implementation and performance management through GPRA. As described in Section 1.2, this involved updating the Agency strategic plan using staff and customer input, directly linking budget development to the planning process, implementing strategic and annual operations plans for each office and center, and developing individual employee performance plans that link directly to the Agency and office/center plans.

Based on the Agency's experience so far, the major foci for the third phase of the strategic planning initiative will be to improve the linkage between the GPRA indicators and the office and center annual operations plans, clarifying and strengthening Agency performance reporting systems, and documenting more thoroughly how the results of the GPRA performance plans are used in the management of the Agency.

One of the strengths of the GPRA plan is its alignment with the cycle of research (needs assessment, creation of new knowledge, translation and dissemination, and evaluation), the quality initiative, and the core MEPS activities. This alignment allows the Agency to more readily conduct gap analyses of where we are and where we want to be. The results of these analyses help AHRQ identify where to place further emphasis, where to continue on its current course, and/or where to discontinue an initiative.

Increasingly, within its GPRA annual plans, AHRQ is placing emphasis on (1) the translation and dissemination of research findings, which the Agency refers to as "Translation of Research Into Practice" or TRIP, and (2) the evaluation of research and products developed by the Agency that are in use in the health care system. These are two core activities that are critical to AHRQ using its investment in research to change health care and impact the well being of the American public.

AHRQ plans on maintaining the current GPRA goals and objectives for the foreseeable future. The intent of the measures remains the same from year to year, i.e., to assess current status of important programs. However, because the Agency's programs are continually moving through the cycle of research, some of the specific measures used under any one goal will change from year to year to reflect the stage that the programs are in: process stage, output stage, or outcome stage. For instance, in the FY 1999 Plan, the Evidence-based Practice Centers (EPC) are represented with measures under Goal 3 representing translation and dissemination. In FY 2000 and FY 2001 they are represented under Goal 4 (evaluation) because the Agency will have moved on to assessing the actual use and impact of the EPC products in the health care system.

A summary of AHRQ's annual performance plans' measures for FY 1999-FY 2001 follows.

Summary of Performance Objectives

Budget Line 1: Research on Health Costs, Quality, and Outcomes

Funding Levels:		
	FY 1999	$139,314,000 (Enacted)
	FY 2000	$165,315,000 (Enacted)
	FY 2001	$206,593,000 (FY 2001 Request)

GPRA Goal 1: Establish future research agenda based on users' needs.

NOTE: B: XX is Budget: page XX; CB is commitment base. Under Actual Performance column the corresponding page #s of the GPRA report are noted. **Further detail on changes made in objectives for Goals 3 - 5 are available in Appendix A.2.**

Performance Objective	FY Targets	Actual Performance	Refer-ence
Objective 1.1: Define direction of FY project funding priorities, in large part, by needs assessment activities.	01: < Agency research agenda covering strategic goal areas for FY 2001 priorities (errors, informatics, and worker safety) is documented based on consultations with various groups.		CB
	00: < Agency research agenda covering the 3 strategic research goals and the new FY 2000 closing the gap initiatives are documented based on consultations with various groups.		
	99: < Agency research agenda covering the 3 strategic research goals is developed in FY 99 and documented based on consultations with various groups.	Completed. p. 40 and Appendix 5.	

GPRA Goal 2: Make significant contributions to the effective functioning of the U.S. health care system through the creation of new knowledge.

Performance Objective	FY Targets	Actual Performance	Refer-ence
01 Objective 2.1: Determine annually the salient findings from research in each of the three areas (outcomes; quality; and cost, access, and use) and develop plan for next steps translation and dissemination.	01: Same as 00, plus (to reflect a consolidation of 99 & 00) < Generate 2 - 3 synthesis reports on research findings and practical applications on Agency priority topics, such as priority populations and other topic themes such as Q-span.		CB
00 Objective 2.1: Determine annually the salient findings from research in each of the three areas (outcomes; quality; and cost, access, and use) and develop plan for next steps translation and dissemination.	00: < Annual report on science advances in three research goal areas. < At least four major findings in each area that have potential to save significant amounts of money, improve quality, save lives or prevent physical suffering, or change the organization and delivery of health care. < For each finding, specific steps in translation and dissemination are identified and initiated.		
99 Objective 2.1: Determine the salient findings from research for three priority populations and develop plan for next steps in translation and dissemination.	A report that synthesizes research on the major health concerns of at least three priority populations produced.	Completed. p. 44 and appendix 6.	
99 - 01 Objective 2:2: Achieve significant findings from AHRQ sponsored and conducted research.	01: same, except changed to 40 findings 00: same, except changed to 25 findings 99: Findings from at least 10 AHRQ sponsored or funded research are published in major peer reviewed professional publications (*New England Journal of Medicine, Journal of American Medical Association*, etc.); receive national press coverage; are used in Federal or State policymaking; are used by professional associations or health plans as the basis of strategies to achieve quality; or are used to establish coverage decisions by health care purchasers, managed care organizations, or insurers, including Medicare or Medicaid.	50 citations for AHRQ findings; 7 examples of major media coverage; 7 examples of usage. p. 45.	CB
Goal 2 continued: **01 Objective 2.3:** Initiate FY 2001 Research Initiatives	Funding of a minimum of 20 projects in: , reducing medical errors and enhancing patient safety , informatics applications in health care , worker safety and health care for workers		B: 56 B: 63 B: 69

00 Objective 2.3: Implement FY 2000 priority (1) “New Research on Priority Health Issues.”	, Funding of a minimum of 10 projects that address gaps in knowledge about the priority problems faced by Medicare and Medicaid. , Funding of a minimum of 10 projects to address eliminating disparities in health care with particular emphasis on disparities that exist for racial and ethnic minorities.		
99 Objective 2.3 Initiate FY 99 Research Initiatives	Funding of a minimum of 21 projects in: < consumers use of information on quality < strengthen value-based purchasing < measure national health care quality < vulnerable populations < translating research into practice Funding of a minimum of 17 projects in: < Outcomes for the elderly and chronically ill < Clinical preventive services < CERTS < Improving the quality of children’s health	56 projects funded. 51 projects funded. Details on p. 47.	

Goal 3: Foster translation of new knowledge into practice by developing and providing information, products, and tools on outcomes, quality, and access, cost, and use of care.

Performance Objective	FY Targets	Actual Performance	Refer-ence
01 Objective 3.1: Maximize dissemination of information, tools, and products developed from research results for use in practice settings. NOTE: in the FY 2001 plan, objective 3.1 and 3.2 have been consolidated.	01: < Formation of a minimum of 10 partnerships to support dissemination of AHRQ products through intermediary organizations, such as health plans and professional organizations. < At least 5 public-private partnerships are formed to implement evidence assessments for decisionmakers. < Number of hits on the Web site < Number of inquiries handled on web site < Number of Uploaded documents. < Number of State and local governments trained in the understanding and use of health services research findings through User Liaison Program (ULP) Workshops .		CB CB CB for all web site measures and ULP
00 & 99 Objective 3.1: Promote distribution of AHRQ publications, products, and tools through intermediary organizations.	00: same 99: Formation of a minimum of 5 partnerships to support dissemination of AHRQ products through intermediary organizations, such as health plans and professional organizations.	30 public/private and public/public partnerships formed. p. 52	
01 Objective 3.2: Develop and facilitate the use of new tools, talent, products, and implementation methodologies stemming from research portfolio. (This is objective 3/3 in FY 99-00)	< Provide evidence summaries for use in Federal direct care providers' efforts to create guidelines < Evidence-based practice centers (EPCs) will produce a minimum of 12 evidence reports and technology assessments that can serve as the basis for interventions to enhance health outcomes and quality by improving practice. < Support a minimum of 165 pre- and post-doctoral trainees. < Support a minimum of 10 minority investigators through individual and center grants. < Fund at least 10 projects in tool development.		CB CB CB B: 79 and CB B: 61, 65 and CB

Goal 3 continued: **99 - 00 Objective 3.2:** Maximize dissemination of information, tools, and products developed from research results for use in practice settings. (Becomes Objective 3/1 in FY 01.)	00: < Number of hits on the Web site < Number of inquiries handled on web site. < Number of Uploaded documents < Reports from user surveys on how the information requested was used. < Number of State and local governments trained in the understanding and use of health services research findings through User Liaison Program (ULP) Workshops + Meetings held. + Number of attendees + States represented. < Reports from annual participants on how the information was used in decisionmaking. < Statistics on usage of National Guideline Clearinghouse including number of hits, requests, organizations, and total users. < Survey of a sample of NGC users to understand the impact of use on decisions and patient care. < At least 10 purchasers/businesses use AHRQ findings to make decisions.		

Goal 3 continued: **Objective 3.2**	99:		
	< Number of hits on the Web site	15.5M	
	< Number of inquiries handled on web site.	2,950	
	< Number of Uploaded documents	4,000	
	< Number of State and local governments trained in the understanding and use of health services research findings through User Liaison Program (ULP) Workshops	48 states; 4 territories; 30 county gov'ts; 9 city gov'ts	
	<		
	+ Meetings held.	18	
	+ Number of attendees	834	
	+ States represented.	48	
	< Statistics on usage of National Guideline Clearinghouse including number of hits, requests, organizations, and total users.	13,590,013	
	< At least 5 purchasers/businesses use AHRQ findings to make decisions.	21 examples listed. Further details, p 54	
Objective 3.3 **99 - 00 Objective 3.3:** Develop and facilitate the use of new tools, talent, products, and implementation methodologies stemming from research portfolio. (This becomes objective 3.2 in FY 01. Objective 3.3 is discontinued in FY 01.)	00 < Use of at least 3 AHRQ research findings in systematic efforts to Translate Research Into Practice. < Funding of a minimum of 5 major projects that will develop products, tools, or methodologies for implementing research findings into practice in significant segments of the health care system (i.e., potential to be generalizable across health care systems, provider-types, or clinical areas.) < At least 2 new tools, products, or methodologies become available from projects funded between FY 1993 and FY 1996. < Support a five percent increase, at a minimum, in number of pre- and post-doctoral trainees.		

Goal 3, continued: **Objective 3.3**	99 < Evidence-based Practice Centers (EPCs) produce a minimum of 12 evidence reports and technology assessments that can serve as the basis for interventions to enhance health outcomes and quality by improving practice (i.e., practice guidelines, quality measures, and other quality improvement tools). At least four reports are being used by customers to develop practice guidelines or other interventions.	10 produced; 3 “in press”; 30 under development	
	< The AHRQ software product, CONQUEST 2.0 released in FY 1999 containing new measures, including measures for new conditions, and updated measures. Contract awarded to create web-based product for more timely updating of information contained within product.	Released March 1999; contract to be awarded 9/00	
	< Funding of a minimum of 5 major projects that will develop products, tools, or methodologies for implementing research findings into practice in significant segments of the health care system (i.e., potential to be generalizable across health care systems, provider-types, or clinical areas.)	13 examples provided	
	< At least two new tools, products, or methodologies become available from projects funded between FY 1993 and FY 1996	15 examples provided	
	< Support a minimum of 150 pre- and post-doctoral trainees.	167 trainees Further details, p. 56	

GPRA Goal 4: Evaluate the effectiveness and impact of AHRQ research and associated activities.

Performance Objective	FY Targets	Actual Performance	Refer- ence
01 Objective 4.1 Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care. NOTE: 99 - 00 Objectives 4.1 and 4.2 have been consolidated in the FY 01 plan.	01: ***Evidence-based Practice Centers*** < Use of evidence reports and technology assessments to create quality improvement tools in at least 15 organizations. < For at least four evidence reports or technology assessments per year, work with partners to measure how the reports or assessments were used and what impact they had on clinical decision making and patient care. < Findings from at least 3 evidence reports or technology assessments will effect State or Federal health policy decisions. < Use of evidence reports or technology assessments and access to NGC site informed organizational decision making in at least 4 cases and resulted in changes in health care procedures or health outcomes. ***Research*** < At least 3 examples of how research informed changes in policies or practices in other Federal agencies. ***Quality Measures*** < Achievable Benchmarks of Care are used for quality improvement activities by Peer Review Organizations < Use of dental performance measures by dental service and insurance organizations. < HCUP quality indicators incorporated into government, quasi-government (JCAHO), and hospital efforts to improve the quality of care.		CB CB CB

Goal 4 continued: **01 Objective 4.1** Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care. *Cont.*	***National Guideline Clearinghouse*** < At least 10 users of the National Guideline Clearinghouse will use site to inform clinical care decisions < Guideline development or quality improvement efforts by users will be facilitated through use of NGC in at least 5 cases. < NGC information will be used to inform health policy decisions in at least 2 cases. < Improvements in clinical care will result from utilization of NGC information in at least 3 cases. ***Training Programs*** 2/3 of former pre- and postdoctoral institutional award trainees are active in conduct or administration of health services research. Evaluation results to date show: < 76% (of respondents) embark on a research or research administration career upon completion of training; < 57% are actively involved in a research grant or contract; and < 75% have had at least one publication.		CB CB
00 Objective 4.1 Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care. *Cont.*	00 < AHRQ's HCUP Quality Indicators(QI's) will be redesigned based on consultations with state policy makers, researchers, hospital associations, and others about their past use of the QI's. By the end of FY 2000, a new set of quality indicators will be defined and feedback obtained from a new set of HCUP QI users. In addition, AHRQ will provide access to recent national-level QI information via both the Internet and through published reports, with special focus on disseminating information to hospital users and organizations with responsibility for hospital quality reporting. < Use of evidence reports and technology assessments to create quality improvement tools in at least 10 organizations. < For at least four evidence reports or technology assessments per year, work with partners to measure how the reports or assessments were used and what impact they had on clinical decisionmaking and patient care. < At least three examples of how research informed changes in policies or practices in other Federal agencies.		

Goal 4 continued: **99 Objective 4.1** Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care. *Cont.*	99 < An evaluation of the outcomes of outcomes research and the impact of AHRQ-supported outcomes and effectiveness research on clinical practice. < An evaluation and synthesis of (1) primary care research supported by AHRQ and (2) an assessment of the current state of the science and future directions for primary care research. < AHRQ's state data strategy will be redesigned based on consultations with state policy makers, researchers, hospital associations, and others about their past use of data from the Healthcare Cost and Utilization Project (HCUP) as well as additional data needs. < Results of the evaluation of the Consumer Assessment of Health Plan Study (CAHPS®) will be used to improve the usability and usefulness of the tool. Findings are expected to show whether (a) the survey-based information from CAHPS® helps consumers make better health care decisions, (b) the information increases consumer confidence when choosing health care plan, and (3) CAHPS® is used by public and private organizations. < Evaluation studies on: (1) the quality and usefulness of the evidence reports and technology assessments produced by the Evidence-based Practice Centers and (2) the impact of the use of these products on the health care system will be developed and initiated in FY 1999.	Completed, p. 62. Progress report, p. 64 Completed, p. 67 Preliminary results, p. 69 Final report will be received in February 2000. p. 69	
01 Objective 4.2: Evaluate the impact of MEPS data and associated products on policymaking and research products.	< Use of MEPS data in AHRQ research applications will increase by 10 percent over number received in baseline period of 1999 < Feedback from recipients of MEPS workshop participants indicating that they were useful and timely. < At least 5 examples of how research using MEPS has been used to inform decisions by Federal, state and private sector policymakers		CB CB CB
00 Objective 4.2: Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care.	< AHRQ will report on the extent to which CONQUEST assists those who are charged with carrying out quality measurement and improvement activities and the extent to which it helps further state-of-the-art in clinical performance measurement. < CAHPS® has assisted the Health Care Financing Administration (HCFA) in informing Medicare beneficiaries about their health care choices. The use and impact of this information is determined by surveying a sample of these beneficiaries.		

Goal 4 continued: **00 Objective 4.2:** Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care, continued. **99: Objective 4.2:** Evaluate major dissemination mechanisms.	< At least one quality measure from Q-span (or instances where AHRQ research contributes to the development of measures) are used in the Health Plan Employer Data Information Set (HEDIS) by the National Committee for Quality Assurance (NCQA), measurement activities of the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) or others who monitor health care quality in organizations. 99 < AHRQ Clearinghouse customer satisfaction rated at 98%. < Customer satisfaction data on AHRQ consumer publications (useful/relevant) rated at 90%.	Met. p. 69 81.3% p. 70	
01 Objective 4.3 n/a **00 Objective 4.3:** Evaluate the impact of MEPS data and associated products on policymaking and research projects. **99: n/a**	< Use of MEPS data in 1% of research applications received by AHRQ. < Distribution of MEPS data sets to at least 2500 requestors. < Feedback from recipients of MEPS data indicating that the data were timely, useful, and of high significance. < At least 5 examples of how research using MEPS has been used to inform decisions by Federal, state, and private sector policymakers.		

GPRA Goal 5: Support Department-wide Intiative to Improve Health Care Quality through leadership and research.

Performance Objective	FY Targets	Actual Performance	Refer-ence
01-00 Objective 5.1: Conduct research to help to measure the current status health care quality in the Nation.	01 < QI Taxonomy Meeting held under the auspices of the QuIC < Number of grants and contracts funded in FY2001 that will help to fill gaps in the information available to assess the national quality of care, or will help to expand the use of current measures to provide a broader or richer picture of quality. 00 < Data sources identified that will contribute information as part of the mosaic picture of quality of care in the Nation. < Develop and begin to test some questions to be added to existing data collection activities to provide a better picture of quality. < Develop framework for National Healthcare Quality Report.		CB B: 70, 73, 76
99 Objective 5.1: Provide leadership for the Executive Branch's Quality Interagency Coordination Task Force (QuIC)	99 < Collaborative work groups are established under the QuIC under take projects with direct application to improving quality of care. < In addition to the work on specific projects chosen by the QuIC, communication is facilitated on common issues such as: 1) Implementation of the Bill of Rights and Responsibilities from the President's Commission on Consumer Protection and Quality in the Health Care Industry; And 2) organization or management strategies to improve quality of care.	Met. Met. p. 76.	

Goal 5 continued:			
01-00 Objective 5.2: Facilitate use of quality information to improve health care in the Nation	01 < Number of grants to assess quality improvement strategies < Adoption of Agency sponsored research and tools developed by one or more users to facilitate consumers/purchaser/decision- maker use of information about quality 00 < Development of at least one tool that can be used by large group purchasers in assisting their beneficiaries to choose the health care plan, provider, or hospital that best meets their needs.		CB CB
99 Objective 5.2: Conduct research to expand the tool box of measures and risk adjustment methods available help to measure the current status of quality in the nation.	99 < Inventory of measures and risk adjustment methods currently in use by Federal Agencies will be developed. < Assessment of measures and risk adjustment methods needed by Federal Agencies will be conducted.	Met. Met. p.77	
01-00 Objective 5.3: Improve quality measurement	01 < Identification of collaborators for research projects on electronic medical records integrated with guidelines (e.g., from the Guideline Clearinghouse) or QI indicators (e.g., CONQUEST, QI Taxonomy project, HCUP measures) 00 < Sponsor research to fill existing gaps in needed measures will be supported.		CB
99 Objective 5.3: Inform health care organizational leaders and others how to design quality into their systems	99 < Review research conducted that identifies appropriate ways of redesigning health care delivery systems to reduce errors.	Met. p. 77	
00: Discontinued **99 Objective 5.4:** Improve understanding of how to ensure that research affects clinical practice as appropriate	99 < Research on effective dissemination of information to decisions makers including patients, clinicians, organizational leaders, purchasers, and public policy makers conducted.	Met. p.77	

Budget Line 2: Medical Panel Expenditure Surveys

Funding Levels:	FY 1999	$29,300,000 (Enacted)
	FY 2000	$36,000,000 (Enacted)
	FY 2001	$40,850,000 (FY 2001 Request)

GPRA Goal 6: Collect current data and create data tapes and associated products on health care use and expenditure for use by public and private-sector decisionmaker and researchers. (Medical Expenditure Panel Surveys)

Performance Objective	FY Targets	Actual Performance	Refer-ence
01-99 Objective 6.1: Release and disseminate MEPS data and information products in timely manner for use by researchers, policy makers, purchasers, and plans.	01		
	< Core public use data files available within a year of the end of data collection (except the full-year expenditure file, which will be available 18 months after the end of data collection)		CB
	< Response time for requests received for information, assistance or specific products is as promised 95 percent of time		CB
	00		
	< Core MEPS public use files (PUFs) available through Web site and CD-ROM within 9-18 months after data collection completed.		
	< Specific products due in FY2000: + 1999 point-in-time file + 1997 expenditure data available + 1996 full panel file available		
	< Customer satisfaction data from use of MEPS tapes and products rated at least 90%.		
	< Response time for requests received from policymakers, purchasers and plans for MEPS data tapes, analyses, and/or reports responded to within promised time frames 95% of time.		

Goal 6 continued: **Objective 6.1**	99 < Core MEPS public use files (PUFs) available through Website and CD-ROM within 9-12 months after data collection completed.	Significant progress made.	
	< Specific products due in FY 1999: + 1997 point-in-time file.	Delivered: March 1999	
	+ 1996 full-year expenditure file.	Dec. 1999	
	+ 1996 full-year event, job, and condition files.	Job and Condition Files delivered November 1999 and August 1999 respectively; event files will be available by March, 2000	
	+ 1998 point- in- time file.	Dec. 1999	
	< Research findings and survey reports developed and disseminated for use by policy makers and researchers including *MEPS Research Findings*, *MEPS Highlights*, chart books, peer-reviewed journal articles, book published on contributions of expenditure surveys to policy making, publications oriented toward non-researchers.)	30+ publications related to MEPS	
	< Customer satisfaction data from use of MEPS tapes and products rated at 85%.	Ratings between 86-96%	
	< Requests received from policy makers, purchasers and plans for MEPS data tapes, analyses, and/or reports responded to within promised time frames 85% of the time.	Requests filled within 5 days uniformly.	
		p.81	

Goal 6 continued: **01-99 Objective 6.2**: Facilitate use of MEPS data and associated products as tools by extramural researchers, policy makers, purchasers, and plans.	01		
	< Increase number of Data Center user days by 20 percent over 00 baseline		CB
	< Distribution of MEPS data sets to 1000 users		CB
	00		
	< Data centers operational + xx requests for use of the centers + xx user-days at the data centers + xx projects completed		
	99		
	< Inclusion of MEPS data in extramural research grants with AHRQ and other funders.	Included in 20 applications, 5 funded.	
	< Plan for extramural researcher access to MEPS data fully implemented	Will be fully up Feb. 00. p. 82	
01 Objective 6.3: Modify and enhance MEPS to enable ongoing reporting on the quality of health care in America.	Data collection begins on the treatment of common clinical conditions over time for a nationally representative portion of the population in support of the National Healthcare Quality Report.		B: 77
00 Objective 6.3: Modify and enhance MEPS to enable reporting on the quality of health care in America as part of FY 2000 Priority (3), "New Tools for a New Century."	The design decisions necessary for the expansion of MEPS databases in order to collect data that will support the National Healthcare Quality Report are completed by August 2000. The design decisions will be operationalized in the coming fiscal years.		
99 Objective 6.3: Modify and enhance MEPS to enable reporting on the quality of health care in America.	99		
	< MEPS Household Survey: Interviews with 9,000 previously surveyed families to obtain calendar year 1998 health care data, and with 5,600 new families.	Met.	
	< MEPS Medical Provider Survey: Interviews with approximately 3,000 facilities, 12,000 office-based providers, 7,000 hospital-identified physicians, and more than 500 home health providers.	Met.	
	< MEPS Insurance Component (MEPS-IC): Interviews with more than 40,000 employers and 1,000 insurance carriers.	Met.	
	< MEPS data collection successfully moved to ongoing survey mode from data collection every ten years.	Met. p. 82	

Budget Line 3: Program Support

Funding Level: FY 1999 $2,341,000 (Enacted)
FY 2000 $2,484,000 (Enacted
FY 2001 $2,500,000 (FY 2001 Request)

GPRA Goal 7: Support the overall direction and management of AHRQ

Summary of Performance Objectives

Performance Objective	FY Targets	Actual Performance	Refer-ence
Objective 7.1 is mandatory (Capital Assets) but not applicable to AHRQ.			
00-99 Objective 7.2:Maintain acquisition performance management system to ensure: (1) timely completion of transactions, (2) vendor and customer satisfaction, and (3) efficient and effective use of resources.	01 DISCONTINUED 00 < Internal customer satisfaction rated at minimum of 4.5/5. < External customer satisfaction rated at 4.5/5. < Customer satisfaction survey results assessed and used to implement changes to improve and enhance services.		
	99 < Internal customer satisfaction rated at minimum of 4.5/5. < External customer satisfaction rated at 4/5. < Customer satisfaction survey results assessed and used to implement changes to improve and enhance services.	4.4/5 4/5 Met p. 85	

Goal 7 continued: **00-99 Objective 7.3.** Continued enhancement and expansion of Agency Intranet site to ensure staff have immediate access to all current information.	01 DISCONTINUED 00 < Customer satisfaction rated at minimum of 3.5/4. < Demonstration through customer satisfaction surveys that the daily work of staff has been facilitated by the Intranet. 99 < Customer satisfaction rated at minimum of 3.5/4. < Customer satisfaction surveys assessed and used to implement changes to improve and enhance services as necessary.	3.1/4 Met p. 85	

PART 2 – PROGRAM PLANNING AND ASSESSMENT

Introduction -- Structure of the AHRQ GPRA FY 1999 Performance Report and FY 2000 and 2001 Annual Performance Plans

The AHRQ GPRA annual performance report and plans are aligned with the Agency's three budget lines:

(1) Research on Health Care Costs, Quality, and Outcomes,
(2) Medical Panel Expenditure Surveys, and
(3) Program Support.

The first two budget lines are where Agency programs are funded. The goals associated with each of the budget lines represent core activities funded in each. The following table illustrates how the GPRA goals are aligned with the AHRQ budget lines. The cycle of research (see page 9), used to structure the first four goals, is the basic framework from the Agency's strategic plan that AHRQ uses when designing and implementing its research initiatives.

What the Indicators Address	GPRA Goal
Budget line 1: Research on Health Care Costs, Quality, and Outcomes	
Cycle of Research Phase 1: Needs Assessment	**GPRA Goal 1:** Establish Future Research Agenda Based on User's Needs
Cycle of Research Phase 2: Knowledge Creation	**GPRA Goal 2:** Make significant contributions to the effective functioning of the US health care system through the creation of new knowledge.
Cycle of Research Phase 3: Translation and Dissemination	**GPRA Goal 3:** Foster translation of new knowledge into practice by developing and providing information, products, and tools on outcomes, quality, access, cost and use of care.
Cycle of Research Phase 4: Evaluation	**GPRA Goal 4:** Evaluate the effectiveness and impact of AHRQ research and associated activities.
Lead role for quality initiative	**GPRA Goal 5:** Support Department-wide Initiative to Improve Health Care Quality through leadership and research.
Budget line 2: Medical Panel Expenditure Surveys	
Core MEPS activities	**GPRA Goal 6:** Collect current data and create data tapes and associated products on health care use and expenditures for use by public and private-sector decision makers and researchers.
Budget line 3: Program Support (Discontinued in FY 2001 performance plan.)	
Agency management activities: contracts management and the AHRQ Intranet.	**Goal 7:** Support the overall direction and management of AHRQ

Performance Measures/Indicators

AHRQ uses a combination of process, output, and outcome indicators to present its performance information. **Process measures:** To monitor the establishment of major new initiatives or implementation of improvements in core activities where significant resources are involved or the potential for significance of the ultimate impact is high. **Output measures:** To record the results of research initiatives and dissemination activities essential to moving to the next step of implementation. **Outcome measures:** To show the impact (or potential for impact) in affecting the outcomes, quality, access, cost, or use of health care.

AHRQ Performance Indicators

Phase of initiative	Year One – research initiative starts	Years 3 - 5 – results received	Years 3 - 10 – results used in health care system
Indicator type	Process indicators	Output indicators	Outcome indicators
Indicator examples	Grants funded, creation of reports, partnerships formed	Publications, web site, dissemination, research findings, reports, products available for use in health care system	Results of evaluation studies, users stories, analysis of trend/other data

Crosswalk to the Budget Document

Where appropriate, the page numbers from the budget request are listed with the corresponding GPRA objective. In many cases the funding for activities, such as evaluation studies or dissemination activities, are captured in the base and there will not be a corresponding description in the text.

As illustrated in the following report, AHRQ has used GPRA as part of an overall Agency strategy to assure accountability, identify opportunities for program improvement, and focus agency activities on mission critical activities. AHRQ has reached its targets for performance in FY 1999. Notable among these accomplishments is an intensive effort to reach out to the Agency's customers to guide program development; the successful establishment of the research initiatives outlined in the FY 1999 budget; the development and active dissemination of Agency research findings and tools; and concerted efforts to begin *translating research into practice*. Highlights of Agency performance include:

User Input

Ideas for future Agency activities were solicited from the users of AHRQ research findings and tools through a targeted mailing of the Agency's strategic plan to over 100 stakeholders and customers, the publication of a "Request for Planning Ideas" in the Federal Register, and over 20 expert and user group meetings. In order to provide context for this input and use it effectively, Agency staff produced retrospective reviews of existing research in outcomes, quality, and access. The user input, combined with the summaries, provided an understanding of what has been accomplished in these areas of research including AHRQ's significant contributions. It also provided many suggestions for future Agency initiatives. AHRQ produced similar summaries for three priority population groups: children, racial and ethnic minorities, and women.

New Research Initiatives

The Agency funded 147 new grants in FY 1999. 107 of them were focused on new research initiatives for a total of $30,349,321 in funding. The grants addressed such issues as consumers use of information on quality, strengthening value-based purchasing, measuring national health care quality, health care issues of vulnerable populations including disparities in care, translating research into practice, outcomes for the elderly and chronically ill, clinical preventive services, improving the quality of children's health, and Centers for Education and Research on Therapeutics (CERTS).

Translating Research Into Practice

AHRQ had tremendous success in releasing significant research findings and disseminating them throughout the United States as illustrated by evidence of extensive press and electronic media coverage. In FY 1999, there were 3,146 newspaper, trade press, and magazine articles (combined circulation of 253,828,363) citing the Agency. This coverage included articles in the New York Times, Wall Street Journal, Washington Post, Dallas Morning News and Rockie Mountain News. AHRQ also received television and radio coverage on major programs including coverage an appearance by Surgeon General David Satcher on 20/20 to discuss

Other mechanisms used for disseminating information on the Agency and its products were also extremely successful. The award winning AHRQ web site had 15.5 million hits (a fivefold increase over 1997) and, in its first year of operation, the National Guideline Clearinghouse generated over 7 million requests for guidelines. Additionally, AHRQ leveraged outside resources through public/private and public/public partnerships for the printing and dissemination of Agency products to targeted audiences.

AHRQ products including evidence-based reports and technology assessments, the Consumer Assessment of Health Plans Surveys (CHAPS®), findings from Patient Outcome Research Teams studies, and analyses of data from the Healthcare Cost and Utilization Project (HCUP) and Medical Expenditure Panel Surveys were used by Federal, State, and local policy makers, practitioners, purchasers, and/or consumers while making health care treatment, purchasing, or coverage decisions.

Evaluations

AHRQ used the results of a number of evaluations to better target Agency activities, improve program management, and identifying future research priorities. These include a retrospective evaluation of the Outcomes and Effectiveness research program, the results of which influenced the Translating Research Into Practice Request for Applications issued in late FY 1999 and the design of other related Agency programs. The AHRQ state data strategy as implemented through the Healthcare Cost and Utilization Project (H-CUP) was evaluated and redesigned in consultation with the state partners and researchers who use the data. Further enhancements of the data sets have been initiated based on this evaluation. Ongoing evaluations of CAHPS, the primary care research program, and the Evidence-based Practice Centers have provided promising preliminary results that are already influencing agency programs.

Leadership of the QuIC

The operational chair of the Quality Interagency Coordination Task Force (QuIC) is the Director of AHRQ. The QuIC, which consists of representatives of the Federal agencies with health care responsibilities, made significant progress in understanding various aspects of measuring and monitoring the quality of health care. The QuIC conducted an inventory of all quality measures and risk adjustment methods used in the Federal health care system and identified gaps where further measures and methods are needed. Activities to begin filling those gaps have begun.

MEPS

Five major data files containing data from the Medical Expenditure Panel Surveys (MEPS) were released for public use and over 30 MEPS-related products were published in FY 1999. Significant progress was made toward releasing data files within 12 months of data collection. The Agency received 20 research applications that used MEPS data as part of their design and funded five of those applications. The MEPS ongoing data collection activities continued on schedule.

2.1 Budget line 1 -- Research on Health Care Costs, Quality, and Outcomes

Funding Levels:	FY 1999	$139,314,000 (Enacted)
	FY 2000	$165,315,000 (Enacted)
	FY 2001	$206,593,000 (FY 2001 Request)

This budget line represents the bulk of the Agency's research (extramural and intramural) portfolio. Dissemination and evaluation activities as well as the Agency's support of the Secretary's Initiative to Improve Health Care Quality are also included. The first five of the annual performance plan's six goals are used to track Agency performance in these areas.

GPRA GOAL 1: Establish Future Research Needs Based on User's Needs. (HCQO

Strategy

In the field of health services research, the user of the information plays a critical role. If health services research is to improve the quality of health care, it must provide answers to the questions and issues that represent the barriers to improvement. AHRQ emphasizes open communication with users of its research to ensure that it is addressing important questions. Through continued emphasis on the first phase of the cycle of research, needs assessment, AHRQ will continue to assure that the Agency's research *begins and ends with the user*.

In the field of health services research, the user of the information plays a critical role. If health services research is to improve the quality of health care, it must provide answers to the questions and issues that represent the barriers to improvement.

Previous Successes:

AHRQ has a history of consulting with the users of its research. The current program announcement that provides guidance to researchers on AHRQ's areas of interest was formed through consultations with many outside experts. A few examples include:

A Request for Ideas to solicit suggestions on research and other activities the Agency should undertake to best meet our strategic plan goals was published in the *Federal Register* on April 15, 1999.

The Center for Outcomes and Effectiveness Research held numerous stakeholder meetings with organizations such as PHARMA, Public Citizen Health Research Group, and the Food and Drug Administration.

An expert meeting was in September of 1999 to obtain stakeholder input into Agency priorities for its women's health research agenda.

Types of Indicators:

Output : AHRQ is committed to tying its research agenda(s) to the needs of the users of health services research in order to maximize the impact of Agency research on the health care system. In FY 1999, AHRQ received input from: (1) responses to a mailing of the Agency's strategic plan to 100+ stakeholders and customers, (2) responses to the publication of a "Request for Planning Ideas" in the *Federal Register*, (3) over 20 expert and user group meetings, and (4) consultations with peer review study section members and the National Advisory Council. The recommendations received from these consultations were analyzed for the Agency by The Lewin Group for content and for recommendations on creating an automated data system to maintain the files (see below.)

Use of Results by AHRQ

Input received on specific issues as well as the synthetic analyses performed by the contractor were used in the program and budget development activities that the Agency undertook during the year. The result is research agendas that are informed by the real needs of the user community. The information is also being used as the basis for program development activities in FY 2000 for important areas of study requiring preliminary work to develop a well designed initiative.

Data Issues:

To provide context for reviewing the advice received from users, AHRQ reviewed and summarized major articles in the research literature pertaining to the Agency's three strategic goal areas: outcomes; quality; and cost, access, and use. The review of what has been accomplished in the field allows the Agency to assess where the user input fits into the current body of research and how best to proceed. To synthesize the current user input from Agency constituencies, AHRQ relied on the review of individual documents related to the topics under consideration or to identify new topics of interest to the Agency. The system is currently maintained manually by the Agency Planning Officer. Working with The Lewin Group, the Agency investigated ways of transforming the information received from the various sources into knowledge that could be aggregated and used without reading individual letters, minutes, or summaries. We learned that this information loses some of its critical meaning when aggregated. The Agency is, therefore, creating a data management system that will electronically store the source document and have word search capability so that staff can identify relevant documents and access them efficiently from their desk top computers when performing program and budget development activities. Additionally, to ensure that the input from users is incorporated into Agency activities, a number of check points have been integrated into the planning processes where user input is explicitly identified and assessed in relation to the proposed activities.

GPRA Goal 1 – FY 1999 Results

Objective 1.1: **Define direction of FY 1999 project funding priorities, in large part, by needs assessment activities.**

Indicator: Agency research agenda covering the 3 strategic research goals is developed in FY 99 and documented based on consultations with various groups. (The FY 99 reports are the first one of this type.)

Result: Appendix 5 (Reports on Needs Assessment Activities) contains reports for three of the Agency's strategic research priorities: Outcomes, Quality, and Access. A synthesis of the existing research including AHRQ's contributions to that current body of knowledge is presented with summaries of the user input the Agency received during FY 1999. The Agency receives many more suggestions for research initiatives that it is able to implement at any one time. How the recommendations are translated into Agency programs is determined during budget and program development activities. AHRQ identifies its research priorities for the fiscal year by issuing Requests for Applications (RFA) and Program Announcements (PA). These are published in the *NIH Guide* and are available on the AHRQ website, www.ahrq.gov.

GPRA Goal 1 – FY 2000 and 2001 Indicators

Goal 1 Objectives	FY 2000 Indicator	FY 2001 Indicator
FY 2000 Objective1.1: Define direction of FY 2000 project funding priorities, in large part, by needs assessment activities.	Agency research agenda in 3 strategic plan goal areas for the new FY 2000 "closing the gap" initiatives are documented based on consultations with various groups. Baseline: First reports produced in FY 99.	

Goal 1 continued: **FY2001 Objective 1.1: Define direction of FY 2001 project funding priorities, in large part, by needs assessment activities.**		Agency research agenda in strategic goal areas for FY 2001 priorities (informatics, errors, and worker safety) is documented based on consultations with various groups. Baseline: First reports produced in FY 99. Budget: Commitment Base

GPRA GOAL 2: Make significant contributions to the effective functioning of the U.S. health care system through the *creation* of new knowledge. (HCQO)

Strategy

There are many gaps in knowledge in all areas of health care. New questions emerge as new technologies are developed, the population's demographics change, areas of inquiry previously under-emphasized take on greater importance, and research previously undertaken identifies further areas that need attention. Therefore, AHRQ will continue to focus on creating new knowledge and assessing the findings that result from completed projects. This second phase of the cycle of research, knowledge creation, identifies the opportunities for improvement from which changes in health care can be designed and implemented. AHRQ will continue to focus on developing a portfolio of peer-reviewed extramural and intramural research and will also place particular focus on the first segment of the research pipeline, "New Knowledge on Priority Health Issues."

Previous Successes

AHRQ research can be broadly categorized as being descriptive, developing tools and analytic methods, and comparing strategies and interventions to improve outcomes, quality, cost, access, and use.

Descriptive Research

AHRQ research has significantly enhanced our understanding of who get what care and when. Researchers have documented where quality or outcomes fall short of possible results, identified barriers in access, measured the costs and utilization of care, focused on the experience of care as seen by patients, and added to our understanding of the widespread nature of health disparities in America.

Examples of Descriptive Research

Analyses of MEPS data revealed that the proportion of Hispanic Americans with no usual source of care has increased dramatically over the past 20 years (30% in 1996, up from 20% in 1977), yet declines in health insurance coverage explain only one-fifth of this change.

A study on cultural impacts on asthma treatment outcomes for Mexicans and Mexican-Americans found that ethnomedical beliefs and behaviors are not related to adherence to asthma medication requirements.

Development of Tools and Analytic Methods

The second dominant aspect of the Agency's work in the last 10 years has been in the development of tools and analytic methods. These include the development of tools to systematically review and synthesize literature, instruments to measure quality and outcomes, sophisticated techniques to measure risk and severity, and methods to characterize and study the changing nature of the health care system itself.

Examples of Development of Tools and Methods

For the past three years, the Healthcare Association of New York State has produced individual performance and quality reports for each of its 200+ hospital and health system members based on the Healthcare Cost and Utilization Project Quality Indicators developed by AHRQ staff.

Measures of quality of care processes and outcomes are being developed for: acute asthma exacerbations, hip fractures, total hip replacement (primary and revision), pressure ulcer rates as nursing home outcomes, statistical measures for continuity of care, and measures for home and subacute care.

Comparative Studies

The third aspect of the Agency's work where additional emphasis has been placed in the last three years is in studies that directly compare interventions to improve care, including both clinical interventions and changes in the organization and financing of health services.

Examples of Comparative Studies

Researchers at the University of Pittsburgh are studying the relative effectiveness and cost-effectiveness of intravenous antibiotics delivered in hospitals to a regimen of oral antibiotics for treatment of pelvic inflammatory disease, a major cause of female infertility.

Preliminary results of a study comparing the use of standard feedback of performance data by Peer Review Organizations to the use of Achievable Benchmarks of Care (ABC's) indicate that ABC's are far more effective in improving physician performance.

Type of Indicators: Process and output – AHRQ uses three approaches to illustrate how it addresses its core activity of creating new knowledge. First, the reports produced for the Goal 2 indicators will provide summaries of the current state of a body of research or the AHRQ portfolio. This will enable the Agency to do the following:

- identify and highlight significant research findings from research funded or sponsored by AHRQ;
- focus its translation and dissemination activities to maximize the potential use of critical findings in the health care system;
- annually assess progress toward filling the gap between what we know and what we need to know about health care.

Second, coverage in major journals and/or evidence of use of research findings provided feedback to AHRQ on whether it's investing in research with the potential to have significant impact when disseminated and implemented widely. This is an initial indication of whether the research funded or sponsored by AHRQ is significant. Coverage by popular and professional media is highly competitive. AHRQ's receiving coverage is an indication that the finding has the potential for significant impact. The actual use of the finding by purchasers, professional associations, managed care organizations, and/or insurers also signals that the new knowledge has the potential to make a difference. The ultimate outcome or impact will be evaluated after the finding has been implemented over a period of time.

Third, through specifying the number of grants that will be funded in particular areas, AHRQ is documenting its commitment to dedicating a certain level of resources in order to advance important new research initiatives. This funding represents a major portion of the new increment of funding requested annually in the budget.

Use of Results by AHRQ

The syntheses for the three populations are being used to inform the initiatives for these groups in the Agency portfolio. In the recent AHRQ reauthorization legislation, the Agency was directed to form an Office of Priority Populations. The information in these reports is being used to provide background on the types of activities that have taken place and to identify gaps that can help frame the functions of the Office.

As indicated under data issues, AHRQ uses the results of the number of media hits and stories of usage to gauge where significant levels of interest exist in Agency research findings. This interest can be leveraged to generate translation and dissemination partnerships and activities with practitioners, policymakers, purchasers, and consumers.

The statistics on number of grants funded and dollars invested in particular areas are used to determine whether the AHRQ portfolio has a significant body of work underway to begin to inform the field. They are also used in gauging the investment in these areas vs. other programs as AHRQ allocates its resources.

Data Issues:

AHRQ knows it cannot collect 100% of the available data on the publication and use of its research findings. However, considerable effort is expended in tracking media coverage. In certain cases, when findings are of particular import or we discover that some finding seems particularly wide spread, the Agency may make a more concerted effort to evaluate the potential for impact in the health care system. Well designed studies illustrating the potential for national impact are used and will be reported under Goal 4.

Collecting data and/or anecdotes on the use of research results or tools is largely done through searches of the literature, media outlets, and Internet listings and tracking by project officers in consultation with grantees. Underscoring the commitment of the Agency to document and understand the use of its research, staff from the AHRQ Office of Health Care Information (the Research Translation Team and Public Affairs Division) have as a particular focus the tracking of documented evidence of the use. The information is captured through regular communications with partners, researchers, associations, and Federal, State, and local governments. Anecdotal information is only used when it can be verified with the actual user. Documentation of the use is sought whenever possible. AHRQ continues to look for ways to introduce efficiencies in this labor-intensive effort.

GPRA Goal 2 – FY 1999 Results

Objective 2.1: **Determine the salient findings from research for three priority populations and develop plan for next steps in translation and dissemination.**

Indicator: A report that synthesizes research on the major health concerns of at least three priority populations produced.

Results: Appendix A.6 contains the summaries of research programs for three priority populations: children, racial and ethnic minorities, and women. For additional information on these Agency programs or a listing of applicable grants funded in FY 1999, please contact the following representatives:

<u>Children's Health</u>

Denise Dougherty, Ph.D.
Coordinator, Child Health Activities
Agency for Healthcare Research and Quality
2101 E. Jefferson St. Suite 502
Rockville, MD 20852
Phone 301-594-2051
Email ddougher@ahrq.gov

<u>Minority Health</u>

Morgan Jackson, M.D.
Director, Minority Health Program

Agency for Healthcare Research and Quality
2101 E. Jefferson St. Suite 500
Rockville, MD 20852
301-594-0147
Email mjackson@ahrq.gov

Women's Health	Marcy Gross Senior Advisor on Women's Health Agency for Healthcare Research and Quality 6010 Executive Blvd. Suite 300 Rockville, MD 20852 301-594-2429 Email mgross@ahrq.gov

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Objective 2:2: **Achieve significant findings from AHRQ sponsored and conducted research.**

Indicator: Findings from at least 10 AHRQ sponsored or funded research are published in major peer reviewed professional publications (*New England Journal of Medicine, Journal of American Medical Association*, etc.); receive national press coverage; are used in Federal or State policymaking; are used by professional associations or health plans as the basis of strategies to achieve quality; or are used to establish coverage decisions by health care purchasers, managed care organizations, or insurers, including Medicare or Medicaid.

Results: *Peer Reviewed Publications Citations* -- AHRQ has documented over 50 citations of research sponsored by the Agency or conducted by its intramural researchers published in major peer reviewed journals during 1999. Examples or the journals include: the American Journal of Cardiology, American Journal of Epidemiology, American Journal of Hematology, American Journal of Public Health, Annals of Internal Medicine, Care Management Journals, Inquiry, Journal of General Internal Medicine, Journal of the American Geriatric Society, Journal of the American Medical Association, Medical Care, New England Journal of Medicine, and Pediatrics. This widespread coverage in major journals ensures that critical findings from Agency research is available to practitioners and policymakers. We recognize publication of findings as a FIRST step in the dissemination and use of findings in the health care system, but a critical first step that establishes the findings credibility in the field and informs potential users of the information.

National press coverage – These are conservative counts based mainly on the newspaper, trade journal and magazine clips that AHRQ receives. The actual number, which for many of the studies, includes TV/radio coverage, and for all includes mention by Internet news services, is believed to be much higher.
Examples:
– The drug treatment for depression evidence report produced by an AHRQ Evidence-based Practice Center generated at least 211 stories.

– The study of the relationship between hospital nurse staffing and post-surgical complications generated at least 165 stories.
– An article from the HCSUS study on variations in access to HIV care generated at least 131 stories, including radio and television coverage.
- A study on how managed care patients view primary care physicians generated at least 80 television, radio, newspaper, trade press stories.
– The implementation of the National Guideline Clearinghouse generated at least 78 stories.
– An AHRQ intramural research report on hospital inpatient statistics generated at least 50 stories.
– Without a press release to alert the media, the study of race variations in referrals generated at least 30 newspaper stories including the New York Times, Washington Post, Wall Street Journal, Dallas Morning News, and Rockie Mountain News. The study was also covered on television on Good Morning America ,20/20 with an appearance by Surgeon General David Satcher, ABC News Tonight, and Fox TV News. Radio coverage included National Public Radio.

In FY 1999, there were 3,146 newspaper, trade press, and magazine articles citing the Agency. The combined circulation of all these periodicals is 253,828,363. It is safe to say that most Americans were exposed to news about or involving AHRQ in the print media. In addition to the coverage of specific stories listed above, the following Agency programs also received print media coverage:

Program	Clippings	Audience Count
Evidence reports	415	36.0M
Smoking Cessation Guidelines	299	9.9 M
US Preventive Services Task Force	103	13.9 M
National Guideline Clearinghouse	90	5.4 M
Medical Expenditure Panel Surveys	50	2.2 M

In the highly competitive media market, major coverage of a research project indicates its significance and increases the likelihood that the results will be noticed not only by health care practitioners, but other audiences for this information including consumers, health care purchasers, and Federal, state, and local policymakers. This type of coverage reaches audiences that do not routinely access peer review journals.

Use of research findings -- AHRQ has also documented thirteen cases of research findings being implemented in the health care system. (This does not include the use of reports and technology assessments completed the AHRQ's Evidence-based Practice Centers or of the Consumer Assessment of Health Plans tool – see sections 3.2 and 3.3 of this report. Examples:

– Findings from the Pneumonia Patient Outcomes Research Team are being used by HCFA's Quality Improvement Organizations and managed care organizations to improve care for patients with community-acquired pneumonia.
– A study contributed to the development of the "Measures of Menopause" measure, which will be included in HEDIS 2000.

- A study on community-acquired pneumonia has been used to develop guidelines by professional organizations and hospitals.
- Several states, including Massachusetts, Georgia, and Texas, have implemented statewide programs/treatment recommendations that are adaptations of the Schizophrenia Patient Outcome Research Teams study.
- The Health Care Financing Administration is using research on categorizing rehabilitation patients according to their level of functioning and needed services in the development of reimbursement system for rehabilitation hospitals.
- Research sponsored by AHRQ and data analyses from the Healthcare Cost and Utilization Project (HCUP) were used to develop indicators for the Access to Quality Health Services chapter of Healthy People 2010.
- The Manitoba, Canada, health authorities have started using the VF-14 assessment tool to prioritize patients on waiting lists for cataract surgery.

These examples illustrate the adoption and use of Agency research findings by organizations that have impact nationally, state-wide, or through a professional organization.

Objective 2.3: Initiate FY 1999 Research Initiatives

This objective represents the Agency's commitment to a certain level of effort that is necessary for the research initiative to succeed. The basic premise is that without a significant investment in research initiatives, there won't be enough new knowledge produced to improve the health care system.

Indicator: Funding of a minimum of 21 projects in:

- consumers use of information on quality (9)
- strengthen value-based purchasing (7)
- measure national health care quality (11)
- vulnerable populations (18)
- translating research into practice (11)

Results: AHRQ funded 56 grants ($16,523,715 in FY 1999 funding) in the above categories with a minimum of 7 in each individual categories. Many of the grants fill multiple categories, for instance, many of the grants that apply to vulnerable populations also will contribute to the outcomes for the elderly and chronically ill below.

Indicator: Funding of a minimum of 17 projects in:

- Outcomes for the elderly and chronically ill (23)
- Clinical preventive services (5)
- CERTS (4) *
- Improving the quality of children's health (19)

Results: AHRQ funded 51 grants ($13,825,606 in FY 1999 funding) in the above categories with a minimum of 4 in each category.

* AHRQ was under a $3 million cap in spending for these grants in FY 1999.

By funding grants that inform the areas of research listed above, AHRQ will develop a portfolio of research findings that will significantly inform the field in these critical areas of interest.

GPRA Goal 2 – FY 2000 and 2001 Indicators

Objective	**FY 2000 Indicator**	**FY 2001 Indicator**
Objective 2.1: Determine annually the salient findings from research in each of the three areas (outcomes; quality; and cost, access, and use) and develop plan for next steps translation and dissemination.	– Annual report on science advances in three research goal areas. * At least four major findings in each area that have potential to save significant amounts of money, improve quality, save lives or prevent physical suffering, or change the organization and delivery of health care. * For each finding, specific steps in translation and dissemination are identified and initiated. * Baseline: The first report will be published in FY 2000.	-- Annual report on science advances in three research goal areas. * At least six major findings in each area that have potential to save significant amounts of money, improve quality, save lives or prevent physical suffering, or change the organization and delivery of health care. * For each finding, specific steps in translation and dissemination are identified and initiated. * Baseline: The first report will be published in FY 2000. – Generate 2 - 3 synthesis reports on research findings and practical applications on Agency priority topics, such as priority populations and other topic themes such as Q-span. Budget: Commitment Base

Objective	**FY 2000 Indicator**	**FY 2001 Indicator**

Goal 2 continued: **Objective 2:2: Achieve significant findings from AHRQ sponsored and conducted research.**	Findings from at least 25 AHRQ sponsored or funded research are published in major peer reviewed professional publications (*New England Journal of Medicine, Journal of American Medical Association*, etc.); receive national press coverage; are used in Federal or State policymaking; are used by professional associations or health plans as the basis of strategies to achieve quality; or are used to establish coverage decisions by health care purchasers, managed care organizations, or insurers, including Medicare or Medicaid. Baseline: 50 citations in peer reviewed publications, 7 examples of major media, 7 examples of usage.	Findings from at least 40 AHRQ sponsored or funded research are published in major peer reviewed professional publications (*New England Journal of Medicine, Journal of American Medical Association*, etc.); receive national press coverage; are used in Federal or State policymaking; are used by professional associations or health plans as the basis of strategies to achieve quality; or are used to establish coverage decisions by health care purchasers, managed care organizations, or insurers, including Medicare or Medicaid.

Objective	**FY 2000 Indicator**	**FY 2001 Indicator**
Objective 2.3: **FY 2000: Implement FY 2000 priority (1) "New Research on Priority Health Issues"** **FY 2001: Initiate FY 2001 Research Initiatives**	Funding of a minimum of 10 projects that address gaps in knowledge about the priority problems faced by Medicare and Medicaid. Funding of a minimum of 10 projects to address eliminating disparities in health care with particular emphasis on disparities that exist for racial and ethnic minorities.	Funding of a minimum of 20 projects in: , reducing medical errors and enhancing patient safety Budget page: 56 , informatics applications in health care Budget page: 63 , worker safety and health care for workers Budget page: 69

GPRA GOAL 3: Foster translation and dissemination of new knowledge into practice by developing and providing information, products, and tools on outcomes; quality; and access, cost, and use o care. (HCQO)

Strategy

This phase of the cycle of research bridges the gap between the development of new knowledge and its implementation in the health care system. AHRQ has taken its commitment to *"ensure that the knowledge gained through health care research is translated into measurable improvements in the American health system"* and integrated it in its approach to promoting the adoption and use of research findings. Through an investment in demonstration projects, public (Federal, state, and local government) and private-sector partnerships, and targeted dissemination activities, AHRQ is focusing on closing the gap between what we know and what we do. We have named this focus "Translating Research Into Practice."

Building on the previous 10 years of research findings, AHRQ will identify ongoing gaps between what we know now and what we do in health care and will begin to close those gaps through research and demonstrations that develop and test implementation strategies in different settings in the health care system. A major focus within this goal is identifying existing implementation strategies in use in health care settings and demonstrating their applicability to widespread dissemination in other areas of the system.

Types of Indicators:

AHRQ uses output indicators, with some process indicators, to assess its progress in the translation and dissemination of research. The indicators regarding number of partnerships, attendees at User Liaison Program meetings, or hits on the AHRQ web site helps the Agency determine that what it produces is of use to major audience segments. The Agency will evaluate the results of the GPRA plan indicators in combination with other information such as details about what products were released, feedback from attendees at programs, where the hits are on the web site, and feedback from customers to manage and improve its dissemination efforts.

Frequently, the results of research are not readily implemented in the health care system without an interim step such as the creation of a tool that facilitates use. A major focus for the Goal 3 indicators, therefore, is to look at the creation and use of tools. The indicators for the Agency's investment in training helps the Agency track its success in furthering the field of health services research by fostering new talent. The number of trainees funded are a reflection of Agency commitment and the success of the training programs in attracting successful candidates. This data can be used in combination with other information about individual trainees, their research projects, professional credentials of professors and mentors, etc. to assess the overall success of the program.

Use of Results by AHRQ

The Goal 3 indicators are used to assess AHRQ's ongoing efforts to *Translate Research Into Practice*. The statistics on such things as usage of the websites, number of and attendance at User Liaison Programs, and/or the production of evidence reports by the Evidence-based Practice Centers are used to measure output – Is the Agency developing and disseminating the products needed by users? AHRQ combines these statistics with evaluations of customer satisfaction and the use and usefulness of the products in order to assure quality as well as quantity. The Agency also uses the information to allocate resources, for example, providing the staff needed to maintain and update the website, expand its capacity, and respond to user suggestions for improvements. As previously stated in this report, the indicators of actual use of the research and/or products provides AHRQ with data on its ultimate goal of getting research into use in the health care system. The volume of the use that we document is an indicator of the total use and helps the Agency identify implementation issues.

Data Issues:

Data collection for Goal 3 falls into two basic categories: collection through Agency data systems and collection through routine program management. The AHRQ has implemented several computer-based reporting tools to monitor usage of Agency information systems and websites. Accurate statistics are recorded periodically on the usage of the National Guideline Clearinghouse, Publications Clearinghouse, and various other Agency websites and systems using commercially available reliable and accurate tools, e.g., WebTrends. These tools are used by many corporations and government agencies nationwide to monitor usage and have been certified by various information technology testing and review groups. This category includes information on categories of grants. Information on all grants, which can be word searched, is included in the Agency Management Information System.

AHRQ tracks print media (newspapers, health care-related trade journals and newsletters, and consumer magazines) news about or involving the Agency through a contractor, Burrelle's -- one of the Nation's largest and oldest news clipping services. Beginning in CY2000, Burrelle's will begin monitoring on-line news services. AHRQ staff is currently doing this task. AHRQ also monitors TV and radio news reports on selected studies in major markets around the United States through another contractor, Video Monitoring Service.

The other statistics are maintained by Agency program staff during the normal monitoring of contracts and grants. Certain items, such as the release of a CONQUEST product, are documented on the AHRQ web site when ready so that consumers are aware of the availability. Other items such as the statistics on the ULP program are monitored through the management of the support contracts, travel arrangements, and other records kept in administering the program. Anecdotal information is verified with the primary source before being used by the Agency in this report or for any other uses.

Previous Successes in Implementing Research

AHRQ research has identified numerous opportunities for improvement in the quality of care. Some recent findings from AHRQ research include:

<u>Schizophrenia PORT</u>

The Schizophrenia PORT produced the evidence needed for the development of treatment recommendations which have been adopted by Massachusetts in a statewide quality improvement program. Initiated by the State Mental Health Director, all treatment facilities will use the recommendations to guide their management of schizophrenic patients. The National Alliance for the Mentally Ill (NAMI) has also used the recommendations to develop a consumer booklet offering advice to patients and family members, which was disseminated to members nationwide.

One section of the treatment recommendations developed through the work of the Schizophrenia PORT is focused on Assertive Community Treatment (ACT) programs, a multi-disciplinary team approach that shares caseloads and offers 24-hour mobile crisis teams, assertive outreach for treatment in the community, individualized treatment, medication, rehabilitation and support services. HCFA has issued a letter to all State Medicaid Directors endorsing the use of ACT programs and confirming Medicaid coverage of additional costs if this treatment model is implemented. Again, NAMI has launched an initiative to promote these programs in the remaining 25 states that have no similar program.

Medical Errors

AHRQ's medical errors study by Leape helped influence three major facilities in the Boston-based Partners HealthCare System as they focused on reducing medication errors - Massachusetts General Hospital, Brigham and Women's Hospital (where the AHRQ study was conducted) and the Dana Farber Cancer Institute. These facilities have added special software to their computerized information systems to reduce medication errors. Called the "Physician Computer Order Entry," the program allows doctors to enter their medication orders, including dosage, route and frequency, directly on computer terminals, thereby eliminating handwritten orders. The system also alerts doctors when an order contains a possible error, such as a potential drug interaction or allergic reaction by the patient.

A test of the software at the 714-bed Brigham and Women's Hospital found that it decreased the rate of serious "nonintercepted" errors - mistakes that could have or did cause an adverse drug event and which were not caught before reaching the patient - by more than half. In addition to protecting patients, the new software is estimated to save the hospital between $5 and $10 million annually, even after accounting for development, start-up and maintenance costs.

GPRA Goal 3 – FY 1999 Results

Objective 3.1: **Promote distribution of AHRQ publications, products, and tools through intermediary organizations.**

Indicator: Formation of a minimum of 5 partnerships to support dissemination of AHRQ products through intermediary organizations, such as health plans and professional organizations.

Results: 30 public-private and public-public partnerships were formed in FY 1999. See details below.

Public-Private Partnerships

Put Prevention Into Practice (PPIP) - materials to support a national campaign to improve the delivery of clinical preventive services such as screening tests, immunizations, and counseling for behavior change. PPIP materials include a clinicians handbook and health guides for adults and children.

9 companies/organizations reprinted and disseminated PPIP materials. Examples:

- Texas Dept. of Health - Austin, TX
- Presbyterian Health Care - Albuquerque, New Mexico
- UCare Minnesota - St. Paul, Minnesota
- OmniCare Health Plan - Memphis, TN
- American Association of Family Physicians

Public-Public Partnership

- HRSA and AARP are partnering with AHRQ and have developed a PPIP Personal Health Guide for Adults Over 50, which was launched at the HP 2010 conference on January 25, 2000.

Quality Navigational Tool (QNT) – an interactive tool designed to help people use evidence-based information on quality and to take a more active role in their health care.

14 companies/organizations disseminating the information to their employees, including it in their newsletters or on web sites. Examples:

- Midwest Business Group in Health
- United Parcel Service (UPS)
- Safeway
- Henry Ford Health Plan
- Blue Cross/Blue Shield of Michigan
- IBM
- Erie Insurance
- National Consumers League

Smoking Cessation - clinical practice guidelines for physicians issued in 1996 that provide evidence-based information on how to help patients stop smoking and patient brochures containing recommendations on how to stop smoking.

14 companies/organizations - reprinted and disseminated smoking cessation materials based on the guideline. Examples:

- The National Medical Association
- Pharmacy Council on Tobacco Dependence (PCTD)
- the Utah Tobacco Prevention and Control Program
- American Academy of Pediatrics
- Michigan Department of Community Health
- American Cancer Society

Additionally, all evidence reports and technology assessments are undertaken only when partners have been identified to take the findings and use them in developing a practice guideline or some other tool that will facilitate their use in the health care system. A list of these partners is in the budget appendix, page A-1.

Objective 3.2: Maximize dissemination of information, tools, and products developed from research results for use in practice settings.

Indicator: Number of hits on the Web site (Baseline: 2.9 million per year in 1997, nearly triple the hits in 1996.)

Results: 15.5 million hits

Indicator: Number of inquiries handled on web site. (Baseline in FY 1997 – 1300; in FY1998 – 2500

Results: 2,950 inquiries

Indicator: Number of Uploaded documents. Baseline in FY 1997 – 950; in FY 1998 – 1450)

Results: 4,000 files/docs uploaded

Indicator: Number of State and local governments trained in the understanding and use of health services research findings through User Liaison Program (ULP) Workshops.

Results: 48 states, 4 territories, 30 county governments from 14 states, and 9 city governments from 7 states.

Indicator: # ULP meetings held.
Baseline – Meetings held. 10 held in FY 1997; 9 held in FY 1998; 12 scheduled in FY 1999

Results:
– Thirteen 2 ½ day national workshops were held: State and local health policy makers from all States were invited to attend twelve of these and only State and territorial legislators were invited to attend one.
– Two 1 ½ day national seminars were held: one included State and local health policy makers from all States and the other included only State rural health directors, directors of Aging, and one other official with a rural or aging focus from 10 States in HHS regions V and VII.
– One 1 day “Masters” seminar was held that included only very senior State health officials entitled, “ What Can States Do to Foster Reengineering of the Health Care Delivery System
– Two 1 day “State-specific” workshops were held to which only State representatives from the organizing State were invited to attend:

> “Vermont: Uniting for Health Care” cosponsored by the Vermont Division of Health Care Administration, the Vermont Employers Health Alliance, the Vermont Program for Quality in Health Care, and AHRQ.
>
> “Exploring Quality Consumer Health Information in Texas” cosponsored by the Statewide Health Coordinating Council, Information Ad Hoc Committee, the Texas Health Care Information Council, and AHRQ.

Indicator: Number of attendees. Baseline: 538 attendees in CY 1997

Results: 834

Indicator: States represented.   Baseline – FY 1997 and 1998 – all 50 states and Puerto Rico

Results: 48 States plus D.C., PR, Virgin Islands, Micro Polynesian Islands, and Guam. (Hawaii and North Dakota are the only 2 States not represented.)

Indicator: Number of hits on National Guideline Clearinghouse (NGC) with analysis of use by page, type of guidelines accessed, whether the guideline was downloaded, and linkages to other sites.

Results: The measures listed in the original performance plan were developed prior to the development of the NGC contract. These were changed to indicators that provide the Agency with better indicators of actual usage.

Definitions:
Hit - any connection to an Internet site, including online images and errors.
Request - any hit that successfully retrieves content.
Visit - a series of consecutive requests from a user to an Internet site.
User - anyone who visits the site at least once.

Total users: 329,715
Average visit/user: 2.24
Average users/organization: 9.68
Average number of requests/user: 23.57
Number of hits: 13,590,013
Number of requests: 7,771,095
Average number of requests/visit: 10.53
Number of organizations: 34,064
Number of U.S. organizations: 10,045
Number of Canadian organizations: 158
Number of International organizations: 3, 627
Unknown: 20,227

Indicator: At least 5 purchasers/businesses use AHRQ findings to make decisions.

Results: *Evidence Reports*

- Use of Erythropoietin in Hematology/Oncology: The Health Care Financing Administration will revise its coverage decision guidance on the topic based on the evidence report
- Criteria To Determine Disability In Patients with ESRD (ECRI EPC): the Social Security Administration will use to determine if more research is needed and if its coverage decision guidance on this topic requires revision.
- Criteria for Referral of Patients with Epilepsy will be used by the Centers for Disease Control and Prevention for inclusion in a clinical practice guideline.

- Diagnosis and Treatment of Dysphagia : Department of Veterans Affairs are considering initiating a study to fill some of the gaps in the research identified in this report. The Health Care Financing Administration will revise its coverage decision guidance on the topic based on the evidence report.
- Testosterone Suppression Treatment for Prostatic Cancer: the Health Care Financing Administration will use to update its coverage decision guidance on this topic.

Consumer Assessment of Health Plans Surveys

The following are examples of organizations using CAHPS® to inform consumers' choices of health plans:

- Daimler Chrysler, Ford and GM
- Colorado Business Group on Health
- Colorado Department of Health Care Policy
- Delaware Health Care Commission
- Employee Health Care Alliance, Wisconsin
- Iowa Department of Personnel and Human Resources
- Kansas Foundation for Medical Care
- Maryland Health Care Commission
- Minnesota Buyers Health Care Action Group and Minnesota Department of Employee Relations
- New Jersey Medicaid
- New Mexico Health Policy Commission
- New York State Department of Health
- Office of Vermont Health Access
- Oklahoma Health Care Authority
- Central Florida Health Care Authority
- Texas Department of Health

In all, there are a total of 25 states fucntioning as a purchasing agency for its employees or for Medicaid beneficiaries have used CAHPS® Those not listed above include: Alaska, Arkansas, California, Georgia, Lousiana, Massachusetts, Michigan, North Carolina, Oregon, Pennsylvania, Utah. CAHPS® has been used in a total of 41 states when those for which it has been used by the US Office of Personnel Management are included.

Objective 3.3: **Develop and facilitate the use of new tools, talent, products, and implementation methodologies stemming from research portfolio.**

Indicator: Evidence-based Practice Centers (EPCs) produce a minimum of 12 evidence reports and technology assessments that can serve as the basis for interventions to enhance health outcomes and quality by improving practice (i.e., practice guidelines, quality measures, and other quality improvement tools). At least four reports are being used by customers to develop practice guidelines or other interventions. Baseline in FY 1998 – 12 reports produced. FY 1999 will be the first year any interventions will be in development based on the reports.

Results: In FY 1999, 10 evidence reports were published and three more were "in press" at the end of the fiscal year. Thirty additional reports are currently under development. Nineteen evidence reports are being used to develop clinical practice guidelines by organizations such as the American Psychiatric Association, American Academy of Pediatrics, American College of Obstetrics and Gynecology, American Academy of Family Physicians, the Consortium for Spinal Cored Medicine, American Academy of Cardiology, and American Heart Association.

Indicator: The AHRQ software product, CONQUEST 2.0 released in FY 1999 containing new measures, including measures for new conditions, and updated measures. Contract awarded to create web-based product for more timely updating of information contained within the product.

Results: CONQUEST 2.0 was released in March 1999. Over 3000 hard copies of the product have been distributed and also additional copies have been downloaded from the web. The contract due to be awarded in FY 1999 (the National Measures Clearinghouse) was canceled in order for the Agency to better assess the future integration of the web-based CONQUEST product with the AHRQ National Guideline Clearinghouse effort. The contract to create a web-based product is expected to be awarded by September 30, 2000.

Indicator: Funding of a minimum of 5 major projects that will develop products, tools, or methodologies for implementing research findings into practice in significant segments of the health care system (i.e., potential to be generalizable across health care systems, provider-types, or clinical areas.)

Results: Three enhancements to the CAHPS® instrument are underway: Group Practice Level CAHPS®, Medicare Disenrollment CAHPS®, Nursing Home CAHPS®. Three small business innovative research grants were funded. They will develop: A system to automate the management and delivery of clinical preventive services using an intergrated approach; health insurance purchasing decision-support tools for small employers; and a home-based cardiac rehabilitation program utilizing the Internet as the primary link between case managers, patients, and family members. Also a number of grants funded under the Translating Research Into Practice initiative contribute to this indicator. Examples include grants that will:

- validate a clinical guideline for community-acquired pneumonia one
- implement a computer-based health support systems
- explore methods for translating research on pain management into clinical practice with a specific focus on elderly hospitalized patients
- study methods to improve and increase screening for Chlamydia
- develop and test methods to evaluate the efficacy of acupuncture treatment for major depression during pregancy
- develop analytical tools and methods for performing meta-analysis of findings from clinical studies that exhibit substantial heterogeneity to estimate treatment effects (The findings will be useful to the Evidence-base Practice Centers and other groups responsible for analyzing data and providing evidence reports.)
- develop patient-centered methods to assess the effectiveness of treatments for chronic neurologic diseases

Indicator: At least 2 new tools, products, or methodologies become available from projects funded between FY 1993 and FY 1996. Baseline: FY 1999 results.

Results:

- ***HCUPnet*** (Health Care Costs and Utilization Project) is now available for public access on the Agency's website. HCUPnet allows users to tailor an online query of HCUP's National Inpatient Sample (NIS), the largest all-payer inpatient database in the U.S. (For further detail see section 4. 1 of this report.)
- Eleven of the 22 Statewide Inpatient Databases (SID) from HCUP are now available from a single point of access, under the auspices of AHRQ. Prior to September l999, the only means to access SID data was to approach each HCUP partner state on an individual basis, determine if the data organizations released their SID, obtain information about state-specific application processes, and successfully complete the application processes. (For further detail see section 4. 1 of this report.)
- Three products developed through the Small Business Innovative Research contracts: (1) Johnston Zabor and Associates developed SmartChoice to help employees choose health insurance plans. It has been purchased by several large employers. OPM and NIH also purchased this product and developed a demonstration website that helped Federal employees in the Washington-Baltimore area choose health insurance plans during the FY98 open season. (2) Abacus developed a workbook and video in English and Spanish to assist low income workers choose health plans. The materials are available commercially and have been integrated into Abacus' benefits management services. (3) Benova developed a computerized decision tool to help Medicaid beneficiaries choose health plans. The tool is available commercially as a stand alone product or can be included in Benova's Medicaid enrollment programs.

Indicator: Support a minimum of 150 pre- and post-doctoral trainees. Baseline: 150 trainees funded per year. Commitment is to maintain the current level of support in FY 1999.

Results: 167 trainees were supported in FY 1999.

GPRA Goal 3 – FY 2000 and 2001 Indicators

Objective	FY 2000 Indicator	FY 2001 Indicator

FY 00 Objective 3.1: Promote distribution of AHRQ publications, products, and tools through intermediary organizations. **(Merged with Objective 3.2 in FY 01)**	-- Formation of a minimum of 5 partnerships to support dissemination of AHRQ products through intermediary organizations, such as health plans and professional organizations. Baseline in FY 1999: 30 partnerships used to disseminate materials.	See Objective 3.2

Objective	FY 2000 Indicator	FY 2001 Indicator
FY 00Objective 3.2: Maximize dissemination of information, tools, and products developed from research results for use in practice settings. **CHANGED TO:** **FY 01 Objective 3.1** **Maximize dissemination of information, tools, and products developed from research results for use in practice settings.**	**Web site:** --Number of hits on the Web site (Baseline: FY 1999 - 15.5 M hits) – Number of inquiries handled on web site. (Baseline in FY 1999 – 2950.) – Number of Uploaded documents. Baseline in FY 1999 - 4000) -- Reports from user surveys on how the information requested was used. **User Liaison Program:** -- Number of meetings held. (Baseline – 13+ meetings held in FY 1999. See details of 99 results.) – Number of State and local governments trained in the understanding and use of health services research findings through User Liaison Program (ULP) Workshops (Baseline – 834 attendees in CY 1999) – Reports from annual participants on how the information was used in decisionmaking.	**Web site:** Same indicators used. **User Liaison Program** Same indicators used. **Partnerships** – At least 5 public-private partnerships are formed to implement research findings for decisionmakers. Budget: Commitment Base
Goal 3 continued: **Objective 3.2**	**National Guideline Clearinghouse** (NGC): Statistics on usage of National Guideline Clearinghouse including number of hits, requests, organizations, and total users.. (Baseline: See FY 1999 results for details.) **Use of research findings** At least 10 purchasers/businesses use AHRQ findings to make decisions.	– Formation of a minimum of 10 partnerships to support dissemination of AHRQ products through intermediary organizations, such as health plans and professional organizations. Budget: Commitment Base

Objective	FY 2000 Indicator	FY 2001 Indicator

Objective 3.3: Develop and facilitate the use of new tools, talent, products, and implementation methodologies stemming from research portfolio. FY 2000 Priority (3), "Translating Research into Practice," focuses on the translation and dissemination of research findings, products, and tools to foster adoption and use in health care settings. **Objective 3.2 in FY 01 Develop and facilitate the use of new tools, talent, products, and implementation methodologies stemming from research portfolio.**	-- Demonstration of use of at least 3 AHRQ research findings in systematic efforts to Translate Research Into Practice. Baseline: Under development. -- Funding of a minimum of 5 major projects that will develop products, tools, or methodologies for implementing research findings into practice in significant segments of the health care system (i.e., potential to be generalizable across health care systems, provider-types, or clinical areas.) (Baseline: Under development.) -- At least 2 new tools, products, or methodologies become available from projects funded between FY 1993 and FY 1996. (Baseline: 16 projects identified in FY 1999.) – Support a five percent increase, at a minimum, in number of pre- and post-doctoral trainees. (Baseline: 167 trainees funded in FY 1999.)	Provide evidence summaries for use in Federal direct care providers' efforts to create guidelines. Budget: Commitment Base Evidence-based practice centers (EPCs) will produce a minimum of 12 evidence reports and technology assessments that can serve as the basis for interventions to enhance health outcomes and quality by improving practice. Budget: Commitment Base Support a minimum of 165 pre- and post-doctoral trainees. Budget: Commitment Base Support a minimum of 10 minority investigators through individual and center grants. Budget: page 79 and commitment base. Fund at least 10 projects in tool development. Budget: pages 61, 65 and commitment base.

GPRA Goal 4: Evaluate the effectiveness and impact of AHRQ research and associated activities. (HCQO)

(Note: All Agency evaluation activities, including MEPS-related studies, are included under Goal 4. This is because the MEPS budget line covers only costs associated with data design, data collection and analysis, and data products.)

Strategy

As explained in other portions of this document, interim outcomes of research can be evaluated on a relatively short-term basis. However, the ultimate outcome of how the research affects people receiving health care or people interacting with the system requires large, expensive retrospective studies. AHRQ is implementing a growing portfolio of evaluations that will show, iteratively, the outcomes of the investments of Agency funds.

Previous Successes:

Examples of evaluations conducted by AHRQ:

Medical organizations increasingly are investing in the development and dissemination of health informatics tools to help patients make decisions about screening and treatment. These informatics tools provide treatment- or disease-specific health information to patient, especially when they are facing choices among ways to manage their illnesses. AHRQ sponsored a study to ascertain the scientific knowledge base underlying these tools and to provide a comprehensive assessment of existing computerized and noncomputerized tools. The results of this study included four recommendations for research priorities in this important resource for patient information. These priorities are being used in the development of the Agency’s program on medical informatics.

Types of indicators

The interim outcomes of research can be evaluated on a relatively short-term basis.

AHRQ conducts evaluations of its major programs or products to determine one or more of the following:

- evaluate the current state of the program or product including impact in health care
- improve customer satisfaction with the program or product
- target or prioritize future activities to increase their usability or usefulness

Use of results by AHRQ

A contract with the Research Triangle Institute (RTI) evaluated the opportunities and challenges for working with private sector organizations with access to large data sets which could support health services research. This review of types of organizations, the nature and scope of their data, and the conditions underwhich they could participate in research collaborations led to the development of the FY 2000 initiative to form the Integrated Delivery System Research Network. Other evaluations have been used by AHRQ to better target activities, improve program management, and help in identifying future priorities for research.

Data Issues

Many of the evaluations are conducted with the assistance of consultants who are highly skilled in evaluation research and/or the subject matter. Some were done through surveys for customer satisfaction that were cleared through OMB. The third category is evaluations conducted through consultations with experts and users to obtain direct feedback on a particular product. The evaluation protocols were developed in consultation with Agency staff. In order to ensure the integrity of the evaluations, the AHRQ staff assigned to the projects were not program staff responsible for the day-to-day administration of the program. Staff with applicable expertise are drawn from throughout the Agency to staff the evaluation projects. Additionally, advice on the evaluation questions as well as on the interpretation and use of the results is often sought from experts on the AHRQ National Advisory Council.

GPRA Goal 4 – FY 1999 Results

Objective 4.1: **Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care.**

The following evaluations of five core Agency program/projects were completed in FY 1999.

Indicator: An evaluation of the outcomes of outcomes research and the impact of AHRQ-supported outcomes and effectiveness research on clinical practice.

Note: the report on the evaluation study *Outcomes of Outcomes Research at AHCPR* is used as a prime resource for this section. Further discussion of the study can be found in section 1.1 of this GPRA report.

The full *Outcomes of Outcomes Research at AHCPR* report may be obtained by contacting Joanne Book at (301) 594-4039 or at Center for Outcomes and Effectiveness Research, AHRQ, 6010 Executive Boulevard, Rockville, MD 20852. The report will also be available of the Agency's web site: http://www.ahrq.gov/clinic/outcosum.htm.

Results: ***Outcomes of Outcomes Research at AHCPR*** (now AHRQ)

Background

In 1998-9, following a decade of investment in outcomes and effectiveness research (OER), AHRQ pursued several activities in needs assessment and evaluation to assure that future research investments would be informed by both a clear understanding of our customers' needs and an evaluation of prior successes and lessons learned. We held several meetings with stakeholders to obtain their input on future priorities; we also conducted quantitative analyses to set the stage for discussion. We also conducted an evaluation titled *The Outcome of Outcomes Research at AHCPR* .

In 1999, Agency efforts to evaluate the first decade of Outcomes and Effectiveness Research (OER) resulted in a report, *The Outcome of Outcomes Research at AHCPR* . The evaluation was conducted by the consulting firm, The Lewin Group, and was designed to:

- Develop a framework for understanding and communicating the impact of OER on health care practice and outcomes.

- Identify specific projects that illustrate the research impact framework.
- Derive lessons and options from past efforts that can help develop strategies to increase the measurable impact of future research sponsored by AHCPR. [1]

In addition to this report, the authors have written or contributed to several recent review articles about outcomes and effectiveness research. [2,3,4]

OER accomplishments

At least three conceptual developments have been strongly influenced by AHCPR-sponsored work:
- The increasing recognition that evidence, rather than opinion, should guide clinical decisionmaking.
- The acceptance that a broader range of patient outcomes need to be measured in order to understand the true benefits and risks of health care interventions.
- The perspective that research priorities should be guided in part by public health needs.

Other accomplishments include:
- OER studies have often provided descriptive data that challenged prevailing clinical ideas about how best to manage specific clinical problems.
- Tools and analytic methods have been developed, including strategies for conducting systematic reviews and meta-analysis (now used by AHCPRs Evidence-based Practice Centers and others), instruments for measuring health outcomes important to patients, and sophisticated techniques for analyzing observational data to adjust for disease severity and minimize bias.
- AHCPR’s funding for OER has produced a network of institutions and trained investigators capable of conducting rigorous evaluations.
- A growing appreciation of evidence-based medicine as a guiding framework for decisionmaking has intensified interest among clinicians, health systems leaders, and purchasers in information about the relationship between clinical and organizational interventions and patient outcomes. In particular, recent interest in quality measurement and improvement has resulted in increasing use of OER results as the basis for performance measures for “report cards” and accreditation.

Lessons learned about OER

- The framers of OER realized that existing data and studies might represent an inexpensive source of knowledge about effective care but might not be sufficient to address all questions about which treatments work best, and for which patients.
- Lessons were learned about study designs, use of data, and

associated bias. Further work is needed to explore more systematically how to associate the features of a particular clinical problem with the most appropriate tools and methods to study that problem (given that the goal is to promote decisions that will improve outcomes of care).

- Additionally, research and experience have demonstrated that development and dissemination of high-quality, highly credible information is necessary to alter practices, but it is not enough. Enhanced knowledge must be linked with supportive practice environments and active implementation efforts.

The full report may be obtained by contacting Joanne Book at (301) 594-4039 or at Center for Outcomes and Effectiveness Research, AHRQ, 6010 Executive Boulevard, Rockville, MD 20852. The report will also be available of the Agency's web site: http://www.ahrq.gov/clinic/outcosum.htm

Indicator: An evaluation and synthesis of (1) primary care research supported by AHRQ and (2) an assessment of the current state of the science and future directions for primary care research.

Results: Progress Report – The State of the Science in Primary Care Research: An Assessment of Recent AHRQ Contributions and Future Opportunities

In a report published in 1996, a committee for the Institute of Medicine defined primary care as "the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community." At the same time, the committee acknowledged that the "paucity of primary care research and development leaves primary care insufficiently prepared to confront the challenges and opportunities inherent in the committee's definition." The Center for Primary Care Research (CPCR) within AHRQ began in 1999 the task of classifying recent contributions to the primary care research base and identifying, as recommended by the IOM committee, areas of primary care research that warrant high-priority attention. This brief paper reports on our progress to date.

A prerequisite to formulating an agenda for primary care research is knowledge of the current status of the science base supporting primary care, including the gaps in that base. With this in mind, we undertook a review of the major primary care research findings published in peer-reviewed journals during the preceding five years (1994 through 1998), with the intention of then identifying the portion of that published research that had been supported by AHRQ. The goals of this effort were (1) to develop a framework, or typology, that captures the major primary care research categories reported on over a recent five year period; (2) to identify areas within this typology in which the primary care research base appears underdeveloped.; and (3) to characterize AHRQ's specific contribution to that research base (beginning five years after the establishment of the agency in 1989), as well as the key areas of primary care research that warrant future federal funding.

Our first task was to identify the major primary care research articles published from 1994-98. Since earlier work with the National Library of Medicine made it clear that this body of literature could not be adequately recovered through the usual electronic searches (MESH headings, etc), we found it necessary to go directly to the journals in which the majority of primary care research in the U.S. is published. To identify those journals, we asked a group of primary care researchers to list the journals to which they submitted their most important research; we also asked leaders of professional primary care organizations to list the journals they most frequently consulted for scientific information to guide their daily clinical or administrative work. Based on this information, nine journals were identified as the repositories of major primary care research published in the U.S.: *Annals of Internal Medicine, Archives of Pediatric and Adolescent Medicine, Health Services Research, Journal of the American Medical Association, Journal of Family Practice, Journal of General Internal Medicine, Medical Care, New England Journal of Medicine,* and *Pediatrics*.

The next step was to identify the articles published in these journals which reported on studies conducted in the U.S. that can be considered primary care research. Toward this end, we established the following criteria: to be considered in the study, an article had to report on (1) an empirical evaluation (editorials, reviews or opinion pieces were excluded); (2) research conducted in the U.S.; and (3) research conducted within a primary care setting.

We reviewed a total of 5,850 research articles published between January 1994 and December 1998 in the nine journals listed above. After applying the listed criteria, we determined that 915 of these articles (15.6%) fulfilled our criteria for primary care research. The percentages of primary care research included in each journal was fairly consistent from year to year but varied dramatically from journal to journal. For example, over 55% of the articles published in *JFP* fulfilled our criteria while only 2% of articles published in *NEJM* could be considered primary care research.

The 915 primary care articles were individually classified into six main categories of research. The percentage of articles that fit into each category is as follows: (a) epidemiological studies, 17%; (b) descriptive clinical studies, 41%; (3) interventions/trials, 12%; (4) studies of the organization of services, 24%; (5) evaluations of workforce or other policy issues, 3%; and (6) development of methods or measures, 1%.

The largest category of articles (descriptive clinical studies) was further sub-classified. The 375 articles in this category were sub-classified as follows: (a) studies on communication or counseling , 8%; (b) research on values/ethics/preferences, 15%; (c) preventive care, 18%; (d) methods of diagnosis, 21%; (e) treatment issues, 25%; (f) cost-effectiveness studies, 2%; (g) studies of performance/quality of care, 8%.

In addition, all 915 primary care articles were classified according to the research design/method used by the investigator. These categories (and percentages) were as follows: (a) cross-sectional design, 51%; (b) prospective cohort design, 9%; (c) retrospective study/chart review, 13%; (d) controlled trial, 11%; (e) secondary data analysis, 13%; (f) meta-analysis/decision or cost-effectiveness analysis, 2%.

Only 3.5% of published primary care studies were conducted within primary care practice-based research networks.

While much work remains to be done on identifying (and verifying) the number and percentage of published research studies which were supported by funding from AHRQ, preliminary data indicate that less than 20% of the published studies acknowledge AHRQ as a source of funding.

Further classification and sub-categorization of the published primary care research remains to be done. However, we are able at this point to make the following tentative conclusions regarding the state of primary care research:

(1) Though journals considered most receptive to primary care research included a significant proportion of primary care research articles, only a small percentage of all published articles fulfilled our criteria for primary care research.

(2) Approximately 60% of the published primary care research we reviewed focused principally on clinical issues (epidemiology, clinical care, or interventions); less than 30% examined issues related to primary care health services research.

(3) Within the body of research dealing with clinical issues, there was a rich diversity of studies. Notable was the small percentage of studies that considered cost-effectiveness issues in primary care.

(4) Cross-sectional designs (e.g., mailed surveys, in-office questionnaires or interviews) predominate the methods used in the recent past by primary care researchers, followed by retrospective studies/chart reviews.

(5) Practice-based research networks have yet to contribute in any major way (in terms of quantity of studies) to the body of published primary care research.

The final typology of primary care research will be useful in determining future directions in primary care research. The recent publication of a request for formal proposals for Primary Care Based Research Networks (PBRNs) will further focus the primary care research agenda on several priority areas, including informatics and health care disparities. Upcoming expert meetings in rural health care, screening for alcoholism, and end-of-life care will also provide useful goal-setting for the primary care research agenda. The final typology of primary care research and planned expert meetings will further delineate CPCR’s future role as the principal source of funding for primary care research in the Department of Health and Human Services.

Indicator: AHRQ’s state data strategy will be redesigned based on consultations with state policy makers, researchers, hospital associations, and others about their past use of data from Healthcare Cost and Utilization Project (HCUP) as well as additional data needs.

Results:

The Healthcare Cost and Utilization Project (HCUP) is a long-standing public-private partnership to build a multi-state data system. Throughout the FY 99 redesign effort, the HCUP team sought and received input from key stakeholders and other sources, including state HCUP partners, hospital associations and other private data organizations, policy-makers, and researchers. A key forum for input occurred at the annual HCUP State Partners meeting in May l999 where 19 of the 22 partner states participated along with representatives from other public and private organizations. All participants examined the current status of the HCUP project and gave feedback on suggested improvements and future directions for the project.

Based on input received, the following redesign efforts have been put in place for the HCUP project:

- During l999, the number of HCUP state partners grew from l9 to 22 states. New state partners were selected for geographic diversity, population concentration, representation of important population subgroups (e.g., racial and ethnic minorities), and immediate availability of data.

- In l999, the HCUP inpatient hospital data effort expanded to include other settings. Hospital-based ambulatory surgery data was collected from nine states on a pilot basis, along with emergency department data from one state. Data from these new sites is being evaluated for data-quality and policy relevance.

- ***HCUPnet*** is now available for public access on the Agency’s website. HCUPnet allows users to tailor an online query of HCUP’s National Inpatient Sample (NIS), the largest all-payer inpatient database in the U.S. HCUPnet is ideal for developing National estimates and analyzing national trends, including trends for hospitalizations that can only be analyzed with large sample databases (e.g. care patterns for rare conditions, frequency and distribution of uncommon procedures such as transplantation). In less than two months, the site received over 2,100 hits, an average of 51 per day. The average number of requests per visit (i.e. how many screens the user goes through) is 10.7 – this means users are sticking around and using the service – not just bouncing in and out. 30% of visits are from users with .com organizations, 23% from .net, 9% from .edu, 6% from .org, and 2% from .gov or .mil.

- Eleven of the 22 Statewide Inpatient Databases (SID) are now available from a single point of access, under the auspices of AHRQ. Prior to September l999, the only means to access SID data was to approach each HCUP partner state on an individual basis, determine if the data organizations released their SID, obtain information about state-specific application processes, and successfully complete the application processes. The method was time-consuming to researchers since each state had varied application requirements. The Central Distributor allows researchers a more efficient method to gain access to HCUP-formatted data from several states since a single application process is used for all states. AHRQ is currently assisting the data organizations in the release of the 1995 and 1996 SID. AHRQ continues to work with the remaining states with the goal of making the SID universally available from a single point of access.

- A feasibility study is underway to explore construction of a dataset specifically aimed at children's studies, in response to the growing interests of policymakers and researchers in studying pediatric hospitalizations. Children comprise about 16% of the HCUP Nationwide Inpatient Sample (which has 5.6 million observations); however many pediatric conditions are relatively uncommon, which makes analysis difficult despite the large sample size of the NIS. The new children's database is in the early stages of development. The Agency is consulting with potential users (e.g. pediatric researchers, CDC staff involved in birth defects studies) to best design the database to allow more reliable estimates for uncommon conditions and procedures.

- Efforts are now underway to create a new database for minority studies called the **Nationwide Inpatient Sample for Minority Studies (M-NIS)**. This dataset would enable the hospitalization experience of racial/ethnic groups to be studied, and in particular would facilitate disparities analysis. This dataset will be based on data from hospitals in the 16 HCUP states that provide data on race/ethnicity.

In addition to routine contact with HCUP partners, representatives from HCUP actively participated as faculty for a diverse assortment of professional conferences, giving seminars on the HCUP project and eliciting input on efforts to improve the usefulness of the database:

- User Liaison Program (ULP) on Managed Care, Medicine and Public Health: Building Collaborations that Work (meeting for state policy-makers), September 1999
- Conference on Health Statistics, National Center for Health Statistics (NCHS), August l999
- National Meeting, Society for General Internal Medicine (SGIM), May l999
- NIH Funded Conference on Funding, Evaluating, and Assessing Sources of Health Data, May l999
- Annual Meeting, Association for Health Services Research (AHSR), June l999
- Building Bridges Research Conference IV (meeting of managed care researchers), April l999
- User Liaison Program (ULP) on Making Evidence Based Decisions; Technology Assessment for Coverage and Disease Management, July 1998

Indicator: Results of the evaluation of the Consumer Assessment of Health Plan Study (CAHPS®) will be used to improve the usability and usefulness of the tool. Findings are expected to show whether
(a) the survey-based information from CAHPS® helps consumers make better health care decisions,
(b) the information increases consumer confidence when choosing health care plan, and

(c) CAHPS® is used by public and private organizations.

Results: Results from the CAHPS® demonstration sites will be available over a period of time as data collection, analysis and interpretation is completed at each site. Additionally, grantees are working collaboratively to summarize results across sites. The plan is to publish these results the scientific literature. Preliminary findings indicate that:

- Consumers say that quality is an important consideration in their choice of plan.
- Quality affects their choice of plan.
- Consumers have a favorable reaction to the CAHPS® reports.
- Consumers use CAHPS® data when choosing a plan.

Indicator: Evaluation studies on: (1) the quality and usefulness of the evidence reports and technology assessments produced by the Evidence-based Practice Centers and (2) the impact of the use of these products on the health care system will be developed and initiated in FY 1999.

Results: Final evaluation report will be received in February 2000.

Objective 4.2: **Evaluate major dissemination mechanisms.**

Indicator: AHRQ Clearinghouse customer satisfaction rated at 98%. (Baseline: Overall experience in ordering from clearinghouse – 96.4% in first half of FY 1997)

Results: CLEARINGHOUSE CUSTOMER SERVICE SURVEY

Question	1999
Was your question answered within a reasonable time:	Yes 99.7%
Was your call handled in a polite and helpful manner?	Yes 99.6%
Did you get the information or Assistance that you requested?	Yes 97.2%
If you used our automated answer system Were the directions easy to follow?	90.5% said they never used the system before

How would you rate the overall quality of service, using a scale of 1 to 5, from lowest quality to highest quality?

Five:	1,248
Four:	399
Three:	68
Two:	9
One:	13

Total number of calls for the survey	4,603
Total number of callers transferred to the survey	2,091

Total number of callers that completed the survey 1,737

This survey was cleared under OMB 0937-0201, entitled "Survey of AHCPR Publications Clearinghouse".

Indicator: Customer satisfaction data on AHRQ consumer publications (useful/relevant) rated at 90%. (Baseline: 81.1% from 1997 survey)

Results: 81.3%. The main reasons that customers were not satisfied were: (1) they ordered it but didn't read it; (2) someone else ordered it for them; or (3) the publication was too general or not specific to the person's condition.

GPRA Goal 4 – FY 2000 and 2001 Indicators

Objective	**FY 2000 Indicator**	**FY 2001 Indicator**
01 Objective 4.1: Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care outcomes and quality. **FY 00 Objective 4.2:** Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care quality.	AHRQ's HCUP Quality Indicators(QI's) will be redesigned based on consultations with state policy makers, researchers, hospital associations, and others about their past use of the QI's. By the end of FY 2000, a new set of quality indicators will be defined and feedback obtained from a new set of HCUP QI users. In addition, AHRQ will provide access to recent national-level QI information via both the Internet and through published reports, with special focus on disseminating information to hospital users and organizations with responsibility for hospital quality reporting.	***Evidence-based Practice Centers*** Use of evidence reports and technology assessments to create quality improvement tools in at least 15 organizations. Budget: Commitment Base For at least four evidence reports or technology assessments per year, work with partners to measure how the reports or assessments were used and what impact they had on clinical decision making and patient care. Budget: Commitment Base Findings from at least 3 evidence reports or technology assessments will effect State or Federal health policy decisions. Budget:: Commitment Base

Goal 4 continued: **Objective 4.1**	Use of evidence reports and technology assessments to create quality improvement tools in at least 10 organizations. (Baseline under development.) For at least four evidence reports or technology assessments per year, work with partners to measure how the reports or assessments were used and what impact they had on clinical decision making and patient care. (Baseline under development.) At least 3 examples of how research informed changes in policies or practices in other Federal agencies. (Baseline under development.) AHRQ will report on the extent to which CONQUEST assists those who are charged with carrying out quality measurement and improvement activities and the extent to which it helps further state-of-the-art in clinical performance measurement. (Baseline will be established by the evaluation study.) CAHPS® has assisted the Health Care Financing Administration (HCFA) in informing Medicare beneficiaries about their health care choices. The use and impact of this information is determined by surveying a sample of these beneficiaries. (Baseline under development.)	Use of evidence reports or technology assessments and access to NGC site informed organizational decision making in at least 4 cases and resulted in changes in health care procedures or health outcomes. Budget: Commitment Base ***Research*** At least 3 examples of how research informed changes in policies or practices in other Federal agencies. Budget: Commitment Base ***Quality Measures*** Achievable Benchmarks of Care are used for quality improvement activities by Peer Review Organizations. Budget: Commitment Base Use of dental performance measures by dental service and insurance organizations. Budget: Commitment Base HCUP quality indicators incorporated into government, quasi-government (JCAHO), and hospital efforts to improve the quality of care. Budget: Commitment Base

Goal 4 continued: **Objective 4.1**	At least one quality measure from Q-span (or instances where AHRQ research contributes to the development of measures) are used in the Health Plan Employer Data Information Set (HEDIS) by the National Committee for Quality Assurance (NCQA), measurement activities of the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) or others who monitor health care quality. (Baseline in FY 1998 – One quality measure adopted and one instance of AHRQ-sponsored research contribute to adoption of measures.)	***National Guideline Clearinghouse*** At least 10 users of the National Guideline Clearinghouse will use site to inform clinical care decisions. Budget: Commitment Base Guideline development or quality improvement efforts by users will be facilitated through use of NGC in at least 5 case. Budget: Commitment Base NGC information will be used to inform health policy decisions in at least 2 cases. Budget: Commitment Base Improvements in clinical care will result from utilization of NGC information in at least 3 cases. Budget: Commitment Base ***Training Programs*** 2/3 of former pre- and postdoctoral institutional award trainees are active in conduct or administration of health services research. Evaluation results to date show: • 76% (of respondents) embark on a research or research administration career upon completion of training; • 57% are actively involved in a research grant or contract; and • 75% have had at least one publication. Budget: Commitment Base

Objective	FY 2000 Indicator	FY 2001 Indicator
Goal 4 continued: **Objective 4.2: Evaluate the impact of MEPS data and associated products on policymaking and research products.**	Use of MEPS data in 1% of research applications received by AHRQ. (20/400 or 5% in FY 1999. Because of budget increase, AHRQ expects to receive significant increases in numbers of applications. Indicator changed based on the changing circumstances.) MEPS products started to be available in FY 1998, with more to be available in FY 1999. AHRQ is publishing program announcements indicating interest in receiving grant applications involving the use of MEPS data. The first research proposals using MEPS data are expected in FY 1999. Distribution of MEPS data sets to at least 2500 requestors. Baseline in FY 1998 – 916 data sets downloaded from web site. 1000 CD's distributed at conferences and other venues. Feedback from recipients of MEPS data indicating that the data were timely, useful, and of high significance. Baseline under development. At least 5 examples of how research using MEPS has been used to inform decisions by Federal, state, and private sector policymakers. Baseline under development.	Use of MEPS data in AHRQ research applications will increase by 10 percent over number received in baseline period of 1999 Budget: Commitment Base Feedback from recipients of MEPS workshop participants indicating that they were useful and timely. Budget: Commitment Base At least 5 examples of how research using MEPS has been used to inform decisions by Federal, state and private sector policymakers Baseline not yet available Budget: Commitment Base

GPRA GOAL 5: Support Department-wide Initiative to Improve Health Care Quality through Leadership and Research. (HCQO)

The President mandated the establishment of the Quality Interagency Coordination Task Force (QuIC) as a vehicle for promoting collaboration among the Federal Agencies with health care responsibilities to improve the quality of care in America. Secretaries Shalala and Herman are co-leading this activity, but asked the AHRQ Director to serve as operating chair. The QuIC is working to improve patient and consumer information, quality measurement systems, the workforce's ability to deliver high quality care, and the information systems needed to support the analysis of the care provided.

The recommendations for assuring and advancing the quality of health care released by the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry have contributed significantly to the development of quality-related research being proposed by AHRQ.

Priorities for the QuIC

1) Improving patient and consumer information;
2) Providing key opportunities for clinical quality improvement;
3) Improving measures of quality;
4) Developing the work force to provide quality; and

Strategy

The work the Agency is doing to support this initiative is woven into the three priority areas that are proposed in the FY 2001 budget. Both objectives represent aspects of other programs that will directly contribute to the goals of the Initiative to Improve Health Care Quality.

Previous Successes

QI Taxonomy Meeting: The Agency for Healthcare Research and Quality and the Health Care Financing Administration jointly sponsored a meeting under the auspices of the QuIC to develop a QI taxonomy. The meeting included participants from a number of the Federal agencies represented on the QuIC including AHRQ, HCFA, CDC, DOD, HRSA, VA, OS/ASPE, and the Coast Guard. Also present was the Medical Review Organization (under contract to HCFA). The meeting was the first step in development of a taxonomy of quality indicators that could be used by Federal agencies in a variety of projects including the advancement of the research agendas of various agencies within the Department of Health and Human Services and other federal agencies and the development of HCFA Peer Review Organization Sixth Scope of Work. The draft documents developed from the meeting will be refined in a report and a published paper and made available to all

Federal agencies and other interested parties.

National Quality of Care Assessment: The Secretary's Quality initiative and the Agency's Reauthorization call for the Agency to lead efforts to measure the current quality of health care in the nation. A preliminary assessment of the currently available measures and data show significant gaps. For example, we are currently unable to provide nationally representative data about the quality of care for traumas or many other life threatening events, we have no nationally representative data on the frequency with which errors occur, and we have not national data on patients' experiences with the care they receive. In the initiative, we will identify what gaps need to be filled and will engage in research projects to fill the gaps. These process measures will track our progress in closing those gaps.

Funding grant with Louisiana State University to support research into the development of a tool to develop a common language and basis for comparing patient preferences and quality measures: The grant will be used to develop and test methodology related to the MEPS data on family perception of the quality of their usual sources of care (Q-USC) and the degree to which their children express behavioral and emotional problems.

The Health Care Informatics Standards Activities of Selected Federal Agencies (A Compendium): The Agency for Healthcare Research and Quality has produced two reports to compile the health care informatics standards activities that have been voluntarily reported by selected federal agencies. The initiative was originally undertaken to assist (1) the Secretary of Health and Human Services in making health data standards choices for administrative simplification(mandated under PL 104-91), (2) the Department of Health and Human Services Data Council's oversight of health data standards, and the (3) the White House in meeting the goals of the Administration to promote the widespread use of the National Information Infrastructure (NII) in health care. The report also provides information to assist DHHS in responding to the request of Vice President Gore (March, 1995) to improve the coordination of federal activities on health care data standards development.

Collaborative Opportunities These projects would provide tools that can be used by both government and private sector entities and also involve possible collaboration with private sector groups. Identifying projects that other agencies are funding and need co-funding support as well as identifying projects for which AHRQ grants can be sought to advance or expand existing projects with other agencies. Pursuing possible collaborative efforts with NLM, DOD (several components), VA, and the Government Computerized Patient Record workgroups.

Types of Indicators

Process and output measures are used to document steps being taken in the quality initiative that aims to coordinate and increase the Federal government's focus on improving health care quality. The steps presented in this plan have been developed by an intra-governmental task force and reflect major milestones in the effort. Because this is a relatively new initiative, many indicators reflect initial efforts on which future, outcome-oriented steps will be based, including critical gaps in knowledge.

Use of Results by

The QuIC provides AHRQ with opportunities to further two major

AHRQ Agency goals. (1) In working with the Federal agencies that provide and/or purchase health care for millions of Americans, AHRQ is learning what major users of health services research on quality, evidence-based medicine and other topics need. This provides AHRQ with an invaluable source of real-time user input and directly influences the Agency's research agenda and product development. (2) The QuIC provides AHRQ with unparalleled opportunities to advance its *Translating Research Into Practice* agenda. The Agency is able to inform the Federal health care community about the existence of research and products that currently are in the portfolio and are relevant to the issues the community is wrestling with.

Data Issues: The results for these indicators are largely completed work products and success in meeting project milestones. As the Director of AHRQ is the QuIC operational chair the AHRQ Coordinator for Quality Activities is assigned to monitor progress of the various workgroups and maintains to all the pertinent data. The majority of the work products of the group are available upon completion to the public. Beginning in February 2000, the QuIC website will be operational at www.QuIC.gov.

GPRA Goal 5 – FY 1999 Results

Objective 5.1: **Provide leadership for the Executive Branch's Quality Interagency Coordination Task Force (QuIC)**

Indicator: Collaborative work groups are established under the QuIC under take projects with direct application to improving quality of care.

Results: QuIC Workgroups were established in May 1998. Projects were initiated in August 1998 and are still ongoing in three areas: Efforts to improve current patient care practices, efforts to create quality improvement tools, and efforts to help inform Americans about health care.

Indicator: In addition to the work on specific projects chosen by the QuIC, communication is facilitated on common issues such as: 1) Implementation of the Bill of Rights and Responsibilities from the President's Commission on Consumer Protection and Quality in the Health Care Industry; and 2) organization or management strategies to improve quality of care.

Results: In terms of communication on common issues, the participating agencies have:

- submitted an update on their activities to implement the bill of rights (January 7, 1999),
- worked collaboratively to decide how best to collaborate with the National Forum on Quality Measurement and Reporting, and
- are working on papers and presentations on issue of quality together.

Objective 5.2: **Conduct research to expand the tool box of measures and risk adjustment methods available help to measure the current status of quality in the nation.**

Indicator: Inventory of measures and risk adjustment methods currently in use by Federal Agencies will be developed.

Results: The measures *inventory* and risk adjustment methods was developed and reported in March 1999. It has led to comparisons of similar measures to try to identify which measures are simpler to use and yield sufficiently detailed data to support analyses. The inventory also resulted in identification of common areas of need for measures, discussions of how to develop the measures together, and collaboration on identifying measures that are sufficiently robust that they can be used for the National Quality Report.

Indicator: Assessment of measures and risk adjustment methods needed by Federal Agencies will be conducted.

Results: The *assessment* of measures and risk adjustment methods was initiated in April 1999 and are still ongoing.

Objective 5.3: **Inform health care organizational leaders and others how to design quality into their systems.**

Indicator: Review research conducted that identifies appropriate ways of redesigning health care delivery systems to reduce errors.

Results: The review of research was completed in August 1999. An initiative to reduce errors, based on the synthesis of the research, will be undertaken beginning in early February 2000.

Objective 5.4: **Improve understanding of how to ensure that research affects clinical practice as appropriate**

Indicator: Research on effective dissemination of information to decisions makers including patients, clinicians, organizational leaders, purchasers, and public policy makers conducted.

Results: AHRQ research on diabetes and depression was presented in August 1999 and is being used in two projects to improve patient care practices in these areas. Generally, the QuIC is working on methods for ensuring that relevant research from AHRQ, NIH, CDC, SAMHSA and other organizations is in the hands of the DoD/VA teams that are trying to establish practice guidelines based on the best available clinical information. These guidelines get implemented through automated reminder systems, policy directives, performance measures, and other techniques. They directly affect the care received by DoD and VA beneficiaries, so it is imperative that they be based on the best possible evidence. The QuIC has facilitated that identification of appropriate experts to include in the DoD/ VA guideline development processes addressing clinical issues that the DoD and Va have identified as critically important to them.

GPRA Goal 5 – FY 2000 and 2001 Indicators

Objective	FY 2000 Indicator	FY 2001 Indicator
Objective 5.1: Conduct research to help to measure the current status of health care quality in the Nation.	Data sources identified that will contribute information as part of the mosaic picture of quality of care in the Nation. Develop and begin to test some questions to be added to the existing data collection activities to provide a better picture of quality. Develop a framework for the National Healthcare Quality Report.	QI Taxonomy Meeting held under the auspices of the QuIC Budget: Commitment Base Number of grants and contracts funded in FY2001 that will help to fill gaps in the information available to assess the national quality of care, or will help to expand the use of current measures to provide a broader or richer picture of quality. Budget: Pages 70, 73, 76

Objective	FY 2000 Indicator	FY 2001 Indicator
Objective 5.2: Facilitate use of quality information to improve health care in the Nation	Development of at least one tool that can be used by large group purchasers in assisting their beneficiaries to choose the health care plan, provider, or hospital that best meets their needs.	Number of grants to assess quality improvement strategies Budget: Commitment Base Adoption of Agency sponsored research and tools developed by one or more users to facilitate consumers/purchaser/decision- maker use of information about quality Budget: Commitment Base

Objective	FY 2000 Indicator	FY 2001 Indicator
Objective 5.3: Improve quality measurement	Sponsor research to fill the existing gaps in needed measures.	Identification of collaborators for research projects on electronic medical records integrated with guidelines (e.g., from the Guideline Clearinghouse) or QI indicators (e.g., CONQUEST, QI Taxonomy project, HCUP measures) Budget: Commitment Base

Goal 5 continued:

Objective	FY 2000 Indicator	FY 2001 Indicator
Objective 5.4: Improve understanding of how to ensure that research affects clinical practice as appropriate	Discontinued.	Discontinued.

2.2 Budget Line (2) -- Medical Expenditure Panel Surveys (MEPS)

Funding Levels:	FY 1999	$29,300,000 (Enacted)
	FY 2000	$36,000,000 (Enacted)
	FY 2001	$40,850,000 (FY 2001 Request)

AHRQ's Medical Expenditure Panel Surveys collects detailed information regarding the use and payment for health care services from a nationally representative sample of Americans. No other surveys supported by the Federal Government or the private sector provide this level of detail regarding: the health care services used by Americans at the household level and their associated expenditures (for families and individuals); the cost, scope, and breadth of private health insurance coverage held by and available to the U.S. population; and the specific services that are purchased through out-of-pocket and/or third-party payments.

This level of detail enables public and private-sector economic models to develop national and regional estimates of the impact of changes in financing, coverage, and reimbursement policy and estimates of who benefits and who bears the cost of a change in policy. No other survey provides the foundation for estimating the impact of changes on different economic groups or special populations of interest, such as the poor, elderly, veterans, the uninsured, or racial/ethnic groups.

GPRA Goal 6: **Collect current data and create data tapes and associated products on health care use and expenditures for use by public and private-sector decisionmakers and researchers.** (Medical Expenditure Panel Surveys – MEPS)

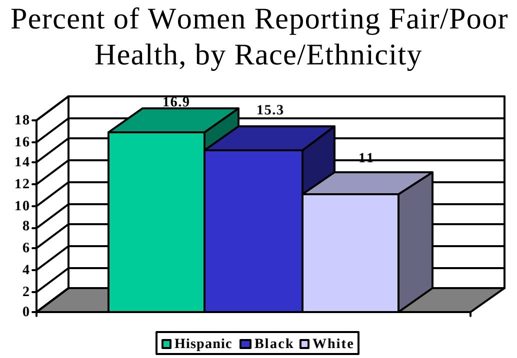
Strategy AHRQ will continue to assess the essential components of the MEPS program – development of new, updated, or otherwise enhanced databases; creation of products for use by researchers and policymakers outside AHRQ; and facilitation of the use of MEPS-related products.

Previous Successes By mid-FY99, the MEPS program

- released 7 major data files
- released 8 Findings, 3 chartbooks, and nine highlights
- released 3 methods reports

Additionally, the MEPS program

- Provides technical assistance to more than 80 persons each month, usually within 2 working days of the request
- Has a fully operational website, averaging nearly 3,000 hits and 160 user sessions each day
- Has developed an active listserve, for MEPS users to consult with each other
- Conducted 6 user 3-hour workshops in FY 1999. Based on customer feedback there will not be as many, but they will be 2 days each.



Types of Indicators: Process and output indicators are used for Goal 6 to present information on the core activities of MEPS. Process indicators reflect major enhancements to the MEPS to support expanding Agency activities in data development and quality measurement. Output indicators present the data on the release of data products for public use that are scheduled annually.

Use of Results by AHRQ The FY 1999 results present a thorough review of AHRQ's success in the data collection and development and release of data products and publications associated with MEPS database.

Data Issues: Many of these indicators are yes/no indicators where the data collection or product release happened as scheduled, or didn't. The evidence of successful completion of the indicators will be available on the AHRQ web site, where products can be accessed. Other data will come from contract monitoring files. Where deadlines have been missed, the Agency determined the cause for the delays and is making the necessary corrections. Beginning with the FY 2000 performance report, AHRQ will include the results of evaluations in Section 4.2 of the use of the MEPS products.

GPRA Goal 6 – FY 1999 Results

Objective 6.1: **Release and disseminate MEPS data and information products in timely manner for use by researchers, policy makers, purchasers, and plans. *(MEPS)*.**

Indicator: Core MEPS public use files (PUFs) available through Website and CD-ROM within 9-12 months after data collection completed.

Results: Significant progress towards releasing public use files within a year after data collection has been made.

Indicators: Specific products due in FY 1999:
2a. 1997 point-in-time file.
2b. 1996 full-year expenditure file.
2c. 1996 full-year event, job, and condition files.
2d. 1998 point- in- time file.

Results: Specific products
2a. Delivered March 1999
2b. December 1999
2c. Job and Condition Files delivered November 1999 and August 1999 respectively; event files will be available by March, 2000
2d. December 1999

Indicator: Research findings and survey reports developed and disseminated for use by policy makers and researchers including *MEPS Research Findings*, *MEPS Highlights*, chart books, peer-reviewed journal articles, book published on contributions of expenditure surveys to policy making, publications oriented toward non-researchers.) Baseline in FY 1998: Total of 27 findings or reports produced.

Results: In FY 1999, the following MEPS related products were published:

- 5 Findings,
- 5 Methods reports
- 2 Highlights
- 2 Chartbooks
- a book on expenditure surveys and policy making
- 12 peer-reviewed papers
- 3 book chapters (excluding book)
- numerous presentations and proceedings

Indicator: Customer satisfaction data from use of MEPS tapes and products rated at 85%. (Baseline: FY 99 results.)

Results: From our baseline Website survey the percent of respondents rating products as good, very good or excellent:

Data files on web:	92%
Data files on CD:	86%
Publications:	93-96%

This survey was conducted under the clearance of the Agency's generic customer satisfaction survey approval.

Indicator: Requests received from policy makers, purchasers and plans for MEPS data tapes, analyses, and/or reports responded to within promised time frames 85% of the time. Baseline data: 5 working days is the current standard.

Results: All requests received by the Center responsible for MEPS were responded to within 5 working days of request. Efforts continue to decrease the response time.

Objective 6.2: **Facilitate use of MEPS data and associated products as tools by extramural researchers, policy makers, purchasers, and plans.**

Indicator: Inclusion of MEPS data in extramural research grants with AHRQ and other funders. Baseline: 1999 is the first year where the MEPS data have been available in time to be included in research applications.

Results: 20 grant applications using MEPS data were received; 5 were funded.

Indicator: Plan for extramural researcher access to MEPS data fully implemented.

Results: The implementation of the plan for providing access to extramural researchers was delayed due to unanticipated complications related to insuring that the Department privacy standards were fully implemented and delays in equipment delivery. The plan is expected to be fully implemented in February 2000.

Objective 6.3: **Modify and enhance MEPS to enable reporting on the quality of health care in America.**

Indicator: MEPS Household Survey: Interviews with 9,000 previously surveyed families to obtain calendar year 1998 health care data, and with 5,600 new families. The MEPS HC is a nationally representative survey of the U.S. civilian noninstitutionalized population which collects medical expenditure data at both the person and household levels. The HC collects detailed data on demographic characteristics, health conditions, health status, use of medical care services, charges and payments, access to care, satisfaction with care, health insurance coverage, income, and employment.

Results: All data collection is successfully ongoing.

Indicator: MEPS Medical Provider Survey: Interviews with approximately 3,000 facilities, 12,000 office-based providers, 7,000 hospital-identified physicians, and more than 500 home health providers.

Results: All data collection is successfully ongoing

Indicator: MEPS Insurance Component (MEPS-IC): Interviews with more than 40,000 employers and 1,000 insurance carriers.

Results: All data collection is successfully ongoing

Indicator: MEPS data collection successfully moved to ongoing survey mode from data collection every ten years.

Results: All data collection is successfully ongoing

GPRA Goal 6 – FY 2000 and 2001 Indicators

Objective	FY 2000 Indicator	FY 2001 Indicator
Objective 6.1: **Release and disseminate MEPS data and information products in timely manner for use by researchers, policy makers, purchasers, and plans**. (MEPS)	Core MEPS public use files (PUFs) available through Web site and CD-ROM within 9-18 months after data collection completed. Specific products due in FY2000: – 1999 point-in-time file – 1997 expenditure data available – 1996 full panel file available Customer satisfaction data from use of MEPS tapes and products rated at least 90%. (Baseline: 86%-96%. See FY 99 results for details.) Response time for requests received from policymakers, purchasers and plans for MEPS data tapes, analyses, and/or reports responded to within promised time frames 95% of time. (Baseline: 100% responded to within 5 days.)	Core public use data files available within a year of the end of data collection (except the full-year expenditure file, which will be available 18 months after the end of data collection.) Budget: Commitment Base Response time for requests received for information, assistance or specific products is as promised 90 percent of time. Budget: Commitment Base

Goal 6 continued:

Objective	FY 2000 Indicator	FY 2001 Indicator
Objective 6.2: Facilitate use of MEPS data and associated products as tools by extramural researchers, policy makers, purchasers, and plans.	Data centers operational – xx requests for use of the centers – xx user-days at the data centers – xx projects completed These are the categories AHRQ will track in the beginning of the data centers program to illustrate that the program has been established successfully and is fully operational. Baseline to be established in FY 00 when the data centers program begins.	Increase number of Data Center user days by 20 percent over 00 baseline. Budget: Commitment Base Distribution of MEPS data sets to 1000 users. Budget: Commitment Base

Objective	FY 2000 Indicator	FY 2001 Indicator
Objective 6.3: Modify and enhance MEPS to enable ongoing reporting on the quality of health care in America.	The design decisions necessary for the expansion of MEPS databases in order to collect data that will support the National Healthcare Quality Report are completed by August 2000. The design decisions will be operationalized in the coming fiscal years.	Data collection begins on the treatment of common clinical conditions over time for a nationally representative portion of the population in support of the National Healthcare Quality Report. Budget pages: 77

2.3 Budget line 3 – Program Support

Goal 7: Support the overall direction and management of AHRQ (PS)

This goal involves supporting the overall direction and management of AHRQ through prudent acquisition performance management, capital asset planning, personnel support and information technology planning.

Funding Levels:	FY 1999	$2,341,000(Enacted)
	FY 2000	$2,484,000 (Enacted)
	FY 2001	$2,500,000 (FY 2001 Request)

Types of Indicators: Outcome indicators that document customer satisfaction with two major functions within the Agency are used.

Use of Results by AHRQ The scores for each of the measures, in combination with the written comments received in the survey, continue to be used to improve the acquisition systems and the Intranet.

Data Issues: The data collection is accomplished through customer surveys administered to Agency staff annually.

GPRA Goal 7 – FY 1999 Results

Objective 7.1: **Provide prudent planning for all capital assets.**
AHRQ included this objective in the plan because we understood we needed to acknowledge this requirement. However, the Agency has no capital assets and didn't include any indicators.

Objective 7.2: **Maintain acquisition performance management system to ensure: (1) timely completion of transactions, (2) vendor and customer satisfaction, and (3) efficient and effective use of resources.**

Indicator: Internal customer satisfaction rated at minimum of 4.5/5. Baseline in FY 1998 – 4.2/5.

Results: 4.4/5

Indicator: External customer satisfaction rated at 4/5. Baseline in FY 1998 – 3.6/5.

Results: 4.0/5

Indicator: Customer satisfaction survey results assessed and used to implement changes to improve and enhance services.

Results: The results of the 1998 Procurement Customer Survey were distributed to the Agency on June 3, 1999. Improvements were noted over the 1997 survey. As a result of the improvements, no new areas for process improvements have been specifically targeted. We are, however, continuing to focus on increasing communication with our customers and improving the service that we provide.

Objective 7.3: **Continued enhancement and expansion of Agency intranet site to ensure staff have immediate access to all current information. The site covers Agency administrative and operational processes, procedures, and policies. It also covers information on ongoing health care research as well as results and findings from all the research supported by the Agency.**

Indicator: Customer satisfaction rated at minimum of 3.5/4. Baseline in FY 1998 – 2.9/4.

Results:	3.1/4 The survey was completed before the release of the revised Intranet, so problems identified by staff had not been fixed. The scores are expected to improve in the next survey.
Indicator:	Customer satisfaction surveys assessed and used to implement changes to improve and enhance services as necessary. Baseline: Based on responses to FY 1998 survey, a totally revised Intranet will be introduced in January 1999.
Results:	The revised Intranet was made available in November 1999 for beta testing and content population by office and center staff. The Beta test period will last about 60 - 90 days. The Intranet is essentially a living document/website that will become more useful as O/C staff contribute to the content.

GPRA Goal 7 – FY 2000 and 2001 Indicators

Objective	FY 2000 Indicators	FY 2001 Indicators
Objective 7.1: Provide prudent planning for all capital assets.	AHRQ has no major fixed (capital) assets or information systems. However, AHRQ will continue to follow the principles and guidance outlined in OMB Circular A-11 Part 3 with regard to planning, and developing fixed assets.	Deleted in FY 2001
Objective 7.2:Maintain acquisition performance management system to ensure: (1) timely completion of transactions, (2) vendor and customer satisfaction, and (3) efficient and effective use of resources.	1. Internal customer satisfaction rated at minimum of 4.5/5. Baseline in FY 1999 – 4.4/5. External customer satisfaction rated at 4.5/5. Baseline in FY 1999 – 4.0/5. 2. Customer satisfaction survey results assessed and used to implement changes to improve and enhance services.	Deleted in FY 2001
Objective 7.3: Continued enhancement and expansion of Agency intranet site to ensure staff have immediate access to all current information. The site covers Agency administrative and operational processes, procedures, and policies. It also covers information on ongoing health care research as well as results and findings from all the research supported by the Agency.	Customer satisfaction rated at minimum of 3.5/4. Baseline in FY 1999 – 3.1/4 Demonstration through customer satisfaction surveys that the daily work of staff has been facilitated by the intranet. Assessment of customer satisfaction surveys and use of such surveys to implement changes to improve and enhance services as necessary.	Deleted in FY 2001

APPENDICES TO THE PERFORMANCE PLAN

A.1 Approach to Performance Measurement

The goals and objectives of the AHRQ performance plan are aligned with the Agency's three budget lines.

Budget Line (1) -- Research on Health Costs, Quality, and Outcomes (HCQO)
Budget Line (2) -- Medical Expenditure Panel Surveys (MEPS)
Budget Line (3) -- Program Support (PS), (the goal associated with this budget line has been dropped in the FY 2001 GPRA performance plan. Please see Appendix A.2. for details.

Performance Indicators

Accurately measuring the outcomes of research programs continues to be a challenge. By its very nature, research is unpredictable. Research activities may or may not yield conclusions that are immediately amenable to application. There can be a considerable time lag between research activities and the outcomes of those activities. Whether and how research findings get used in the health care system is dependent on countless variables over which AHRQ has no control. Another important limitation is the nature of extramural research. AHRQ cannot control what types of applications it will receive, nor what the results will be of the funded research. Thus, AHRQ, like other research agencies, continues to face the challenge of showing the impact of research activities within these constraints.

In order to mitigate these factors, the Agency sets research priorities based on its strategic plan and input from the end users of the research. Program announcements and requests for applications are used to communicate the research priorities to the field. The portfolio of research is managed to contain a mix of short and long term projects. Partnerships are integral to the conduct of AHRQ's work to promote timely application. More recently, added emphasis has been placed on efforts to translate research into practice to assure impact.

To understand and report on the impact of Agency programs on health care, additional emphasis is being placed on evaluation activities. As a result, the Agency will be able to report on process, output, and interim outcome goals through out the course of its major initiatives. Goal 4, Evaluate the effectiveness and impact of AHRQ research and associated activities, is designed to capture the results of the emphasis on evaluation of impact. In each performance plan, the Agency includes a number of evaluations that illustrate the impact of research products when used to inform consumers, measure quality, and make policy decisions.

Alignment with Committee on Science , Engineering, and Public Policy (COSEPUP) Report on Evaluating Federal Research Programs[4]

In reviewing the COSEPUP report, AHRQ was pleased to find that many steps taken in recent years to improve Agency evaluation processes and connections to users of Agency reserch are supported by the report's recommendations.

On page 6, the reports points to three types of expert review that are the most effective ways of evaluating federally funded research programs. These are quality review, relevance review, and international benchmarking. Agency staff regularly make presentations to the AHRQ National Advisory Council on major research initiatives. The members provide direct feedback on the quality and relevance of the work. National researchers who make presentations to AHRQ staff provide another form of direct feedback on Agency programs. Finally, as part of AHRQ's commitment to have its research begin and end with the user, expert meetings are held to gather input when planning new initiatives. These meetings provide another venue for national experts to provide feedback on the quality and relevance of work-to-date, as well as advice on directions for the future. While AHRQ does not have a formal benchmarking program, increased involvement of Agency staff with health care improvement efforts in Russia, programs at the World Health Organization, and other international activities are providing valuable input on Agency programs.

On page 38, the report states "In addition, agencies should conduct periodic reviews of the overall practical outcomes of an agency's overall past support of applied and basic research." AHRQ previously has conducted this type of review when developing and implementing next steps for major initiatives. With the advent of annual performance plans, evaluations of the outcomes of Agency investments has become integrated into the core processes of AHRQ evaluation activities. Recently, the Agency completed an evaluation of the outcomes of the outcomes research program. The results of the evaluation are informing the next phase of the outcomes research and other initiatives under development. Goal 4 of each GPRA performance plan presents the evaluation studies that the Agency is using to determine impact Agency research and products are having on the health care system.

AHRQ will continue to improve its performance measurement activities by strengthening, and making more explicit, the connections between current evaluation strategies and those recommended in the COSEPUP report.

Data Collection

AHRQ recognizes that its commitment to accountability will not be achieved easily and that it entails an added investment in measurement as part of all of the Agency's programs. The Agency's approach consists of capitalizing on data collection opportunities as a by-product of the work we

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[4] The Committee on Science, Engineering, an d Public Policy, *Evaluating Federal Research Programs, Research and the Government Performance and Results Act*, National Academy Press, Washington, D.C. (1999).

do or sponsor, partnering with public and private organizations, and maximizing the use of information technology applications. AHRQ will use a variety of data collection methods.

Research Applications - Studies which address the translation of research into practice will be required to include in their design appropriate measures of impact.

Grants Management Databases - AHRQ is investing in the development of an intranet based integrated information management system through which progress on funded grants and their results will be captured as part of routine reporting. A number of yes/no indicators are included in the plan, and they should present few data collection problems thanks to this system.

Information technology - Expanded use of technologies (e.g. intranet, extranets, list-serves, etc...) will permit efficient capturing of important qualitative information on the impact of Agency programs. (One example is objective 3.2, where AHRQ will report on the impact of the User Liaison Program by gathering user stories from attendees on their use of program information in decisionmaking.)

Performance Management System - AHRQ has aligned its employee performance management system with each organizational unit's plan and the Agency plan and incorporated many process and output measures into employee plans. These will be aggregated annually to yield some of the measures in the GPRA plan.

Customer surveys - These are a critical source of information on the appropriateness, use, and quality of AHRQ products and services. This approach is being expanded in the 2000 plan. In some instances, the mechanisms for collecting customer service data are already in place and the first set of data has been analyzed, such as with the Publications Clearinghouse. In other instances, the customer surveys must be designed, fielded, and responses analyzed. Because of the substantial financial costs involved, often it will be necessary to survey large representative samples to obtain information on the usefulness, relevance, and quality of AHRQ's work and its associated impact. The Agency has started working on the issues, including cost analyses for the surveys required, and expects to have the necessary infrastructure in place by FY 2000. We will work closely with DHHS both to share our experience and to apply the knowledge and expertise of others. Identifying opportunities for collaborations and/or cost sharing will be a priority. Notations are made within the text of the plan for each measure that will use a survey mechanism.

Partnerships - Many public and private sector organizations collect data on processes of care which AHRQ programs and research are intended to improve. For example, Peer Review Organizations (PROs) have taken AHRQ research findings and recommendations, worked with practitioners and institutions to adopt them, and provided the Agency with feedback regarding improvements in practice. The Health Care Utilization Project (HCUP) database, developed in partnership with 19 states, provides additional insights regarding changes in clinical practice in those states.

Another source of information will be the growing number of collaborative research projects that make use of the internal databases of large private sector health care delivery organizations. A rich source of information will be the external organizations that serve as partners for the reports being developed by the Agency's Evidence-based Practice Centers program. They have made a commitment to implement the reports in a variety of ways and will provide the Agency with data on the utilization and impact of their efforts. By working collaboratively we can meet some of our measurement needs more cost-effectively.

Evaluations - Specifically commissioned studies (both intramural and extramural) will be used to evaluate the impact of AHRQ programs more rigorously. These studies are presented in AHRQ's Goal 4. These studies will evaluate such things as: the effect a product, e.g., a quality measurement tool, had on improving the quality of health care; whether a product that is effective in one care setting can be generalized to other settings, e.g. a clinical decision support system; or whether a product is user friendly and useful. Because these studies will be complicated, resource intensive, and expensive, the Agency will propose a limited number each year.

Other Mechanisms - The Agency has developed a variety of other mechanisms that will enable it to collect information on the impact of its work. These include:

< *Research Translation Team* - This newly formed group is responsible for capturing and distilling qualitative data on the use of Agency sponsored and conducted research and products in the health care system. Through investigating the details of anecdotal evidence, literature searches, tracing the impact of completed research projects and other methods, AHRQ will compile evidence of the impact that it is having in the health care system.

< *Partnership liaison* - AHRQ has assigned a senior staff person to stimulate and coordinate partnerships and liaisons with other organizations within the Federal government, State governments, and the private sector. This will help us identify the uses to which existing research and products have been used, stimulate implementation demonstrations, and identify the need for future research. The creation of this position is part of the Agency's increased efforts to create clear and ongoing mechanisms to obtain input from the user community.

< *Conferences and expert panels* - The agency will convene conferences and expert panels to help identify effective methods of translating research into practice and evaluating those methods through demonstrations and other projects. The information gained through these activities will impact the Agency's future research agendas and its translation and dissemination activities.

A.2 Changes and Improvements Over Previous Year

Summary

The GPRA plan has been reformatted into the generic format developed within the Department of Health and Human Services.

The major change to the FY 2001 performance plan is the elimination of Goal 7, which was aligned the Agency's third budget line, Program Support. Entitled, "Support the overall direction and management of AHRQ", it reported on management issues for contracts management and internal information system development. The Agency is dropping the contracts management measures because they do not rise to the level of being one of the "critical few" measures that should be reported by the Agency. These measures remain in place internally in the Office of Management Operations Plan and employee performance plans for the managers and staff. The information systems are now being reported on in Appendix A.4 and do not require separate goals and measures. The measures for this area also remain in place internally in the Office of Management Operations Plan and employee performance plans for the managers and staff.

The number of indicators for each of the FY plans has not fluctuated greatly (FY 1999 - 45, FY 2000 - 6, FY 2001 - 46). However, there has been an increasing emphasis on two particular GPRA goals. The indicators for Goal 3, where the Agency's increasing emphasis on translating research into practice (TRIP) is represented, have increased from 12 in FY 1999 to 14 in FY 2001. For Goal 4, where the evaluations of the use and impact of AHRQ research findings, tools, and products in the health care system are listed, the number of indicators has increased from 7 in FY 1999 to 15 in FY 2001. The increase in indicators for Goal 4 clearly demonstrates AHRQ's commitment to showing that the results of its investment in research is having an impact on the health care of the American public.

Additionally, as we do each year, the measures were updated to reflect where Agency programs are expected to be in 2001. That resulted in output measures being added for research initiatives that are expected to come to fruition. Also, some initiatives are now being assessed under Goal 4 (evaluation) because the results, products, or tools are now being evaluated for their impact when used in the health care system. Additionally, some measures were changed based on the data collected in FY 1999.

Objectives under GPRA goals 3, 4, and 6 have been consolidated to eliminate duplication and unnecessary detail. (See the table below.)

Detailed Presentation

Goal 1: Establish Future Research Needs Based on User's Needs

99 Performance Objective	00	01	Comments
Objective1.1: Define direction of FY project funding priorities, in large part, by needs assessment activities.	Same	Same	None

Goal 2: Make significant contributions to the effective functioning of the US health care system through *the creation of new knowledge*.

99 Performance Objective	00	01	Comments
99 Objective 2.1: Determine the salient findings from research for three priority populations and develop plan for next steps in translation and dissemination.	Objective 2.1: Determine annually the salient findings from research in each of the three areas (outcomes; quality; and cost, access, and use) and develop plan for next steps translation and dissemination.	Same as 00.	None
Objective 2:2: Achieve significant findings from AHRQ sponsored and conducted research.	Same	Same	None
Objective 2.3 Initiate FY 99 Research Initiatives	Objective 2.3: Implement FY 2000 priority (1) "New Research on Priority Health Issues."	Objective 2.3: Initiate FY 2001 Research Initiatives	The wording changes slightly every year to reflect implementation of current initiatives.

Goal 3: Foster translation of new knowledge into practice by developing and providing information, products, and tools on outcomes, quality, and access, cost, and use of care.

99 Performance Objective	00	01	Comments
Objective 3.1: Promote distribution of AHRQ publications, products, and tools through intermediary organizations.	Same	Objective 3.1: Maximize dissemination of information, tools, and products developed from research results for use in practice settings.	The previous Objectives 3.1 and 3.2 were consolidated to reduce redundancy.

Goal 3 continued: Objective 3.2: Maximize dissemination of information, tools, and products developed from research results for use in practice settings	Same		
Objective 3.3: Develop and facilitate the use of new tools, talent, products, and implementation methodologies stemming from research portfolio.		Objective 3.2**:** Develop and facilitate the use of new tools, talent, products, and implementation methodologies stemming from research portfolio.	We have maintained this objective with a different number.

Goal 4: Evaluate the effectiveness and impact of AHRQ research and associated activities.

99 Performance Objective	00	01	Comments
Objective 4.1 Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care.	Same	Objective 4.1: Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care outcomes and quality.	The FY 00 plan inadvertently had two objectives of the same title. That redundancy has been removed. With that exception, the objectives remain the same as FY00.
Objective 4.2: Evaluate major dissemination mechanisms.	Objective 4.2: Evaluate the impact of AHRQ sponsored products in advancing methods to measure and improve health care.	Objective 4.2: Evaluate the impact of MEPS data and associated products on policymaking and research products.	
n/a	Objective 4.3: Evaluate the impact of MEPS data and associated products on policymaking and research projects.		

Goal 5: Support Department-wide Intiative to Improve Health Care Quality through leadership and research.

99 Performance Objective	00	01	Comments
Objective 5.1: Provide leadership for the Executive Branch's Quality Interagency Coordination Task Force (QuIC)	Objective 5.1: Conduct research to help to measure the current status health care quality in the Nation.	Same as FY 00.	
Objective 5.2:Conduct research to expand the tool box of measures and risk adjustment methods available help to measure the current status of quality in the nation.	Objective 5.2: Facilitate use of quality information to improve health care in the Nation.	Same as FY 00.	
Objective 5.3: Inform health care organizational leaders and others how to design quality into their systems	Objective 5.3: Improve quality measurement.	Same as FY 00.	
Objective 5.4: Improve understanding of how to ensure that research affects clinical practice as appropriate	n/a		

Goal 6: Medical Expenditure Panel Surveys

99 Performance Objective	00	01	Comments
Objective 6.1: Release and disseminate MEPS data and information products in timely manner for use by researchers, policy makers, purchasers, and plans.	Same	Same	
Objective 6.2: Facilitate use of MEPS data and associated products as tools by extramural researchers, policy makers, purchasers, and plans.	Same	Same	

Goal 6 continued: Objective 6.3: Modify and enhance MEPS to enable reporting on the quality of health care in America.	Objective 6.3: Modify and enhance MEPS to enable reporting on the quality of health care in America as part of FY 2000 Priority (3), “New Tools for a New Century.”	Objective 6.3: Modify and enhance MEPS to enable ongoing reporting on the quality of health care in America.	The name changed slightly to make the objective more generic from year to year. This objective is where the Agency will note the ongoing and important role that MEPS is playing in measuring national quality.

GOAL 7: Support the overall direction and management of AHRQ

Budget line: Program Support

99 Performance Objective	00	01	Comments
Objective 7.1 is manditory (Capital Assets) but not applicable to AHRQ.	Same	Discontinued	The measures for these objectives are for internal management and do not warrant being reported outside AHRQ. The measures for this area also remain in place internally in the Office of Management Operations Plan and employee performance plans for the managers and staff.
Objective 7.2: Maintain acquisition performance management system to ensre: (1) timely completion of transactions, (2) vendor and customer satisfaction, and (3) efficient and effective use of resources.	Same	Discontinued	
Objective 7.3: Continued enhancement and expansion of Agency intranet site to ensure staff have immediate access to all current information.	Same	Discontinued	

A.3 Linkage to HHS Strategic Plan

AHRQ is guided by and supports the strategic plan goals of the Department of Health and Human Services (HHS).

The Agency's activities contribute to five of the six HHS goals.

HHS Goal 2: Improve the Economic and Social Well-Being of Individuals, Families, and Communities in the United States – For example, through the Agency's research on children's health

HHS Goal 3: Improve Access to Health Services and Assure the Integrity of the Nation's Health Entitlement and Safety Net Programs – For example, through the activities of the Agency's Center for Primary Care Research

HHS Goal 4: Improve the Quality of Health Care and Human Services – For example, through numerous Agency activities including quality measurement research and data development

HHS Goal 5: Improve the Public Health System – For example, through the Agency's data development and monitoring activities and investments

HHS Goal 6: Strengthen the Nation's Health Sciences Research Enterprise and Enhance Its Productivity – For example, through the Agency's research, data development, translation, and dissemination activities

A detailed summary of AHRQ's contributions to the HHS strategic plan follows, however, the Agency's contributions to Goals 4 and 6 are of particular note.

AHRQ is the Department's lead Agency for health care quality activities and is a major contributor to Goal 4. Research on the determinants of health care quality, effective and cost effective ways to improve health care quality, and how to measure health care quality will be instrumental in achieving success in the goal's objectives. Additionally, the new information developed, and then implemented in the health care system, from research on outcomes and effectiveness of care, as well as access to, cost, and use of health care, will help close the gaps between what we know and what we need to know, on the one hand, and what we know and what we do in health care, on the other hand. AHRQ also supports HHS Goal 4 through leadership of the Secretary's quality initiative, support of the Quality Interagency Task Force, contributions to the HHS Race and Health Disparities Initiative, and close working relationships with other HHS Agencies and the Office of the Secretary.

Within Goal 6, AHRQ's expanding portfolio in outcomes and effectiveness, quality, primary care, and other practice-based research, as well as extramural and intramural studies of issues pertaining to access, cost, organization, and delivery of health care, will contribute to achieving objective 6.4. Additionally, AHRQ's substantial investment in the development of data bases will enable others to perform research and analyses to answer questions critical to understanding the dynamics of the health care system.

AHRQ maintains its commitment to building the infrastructure needed to continue to conduct high-quality, cutting-edge health care research for the next century through national training programs (including the National Research Service Awards program), service fellows and summer intern programs, mentoring programs, and the provision of technical assistance to a variety of its audiences. AHRQ will continue to support and expand efforts to attract trainees from racial and ethnic minorities into the field of health services research. These activities are aligned with Objective 6.6.

For the Nation's investment in research to reach its full potential, the results must be widely disseminated (Objective 6.7) and implemented. The AHRQ Cycle of Research presented in section E.2. of this plan illustrates the important role that dissemination will play in all areas of activity within the Agency. This focus aligns with Objective 6.7.

Examples of AHRQ's Contributions to the HHS Strategic Plan

HHS Goal 2: **Improve the Economic and Social Well-Being of Individuals, Families, and Communities in the United States**

HHS Objective 2.5: Increase Opportunities for Seniors to Have an Active and Healthy Aging Experience

HHS Objective 2.6: Expand Access to Consumer-Directed, Home and Community-Based Long-Term Care and Health Services

AHRQ will conduct research in areas relevant to improving the aging experience in such areas as: 1) conditions of particular importance to the Medicaid population; and 2) quality measurement issues and tool development for institutional settings. In FY 2001, AHRQ will support important new initiative to improve the knowledge and tools to improve health care quality for Older Americans and optimize their functional outcomes.

HHS Goal 3: **Improve Access to Health Services and Assure the Integrity of the Nation's Health Entitlement and Safety Net Programs**

HHS Objective 3.2: Increase the Availability of Primary Health Care Services

To test the effectiveness of health care improvement approaches, AHRQ will study such topics as: 1) the implementation of evidence-based information in diverse health care settings to determine effective strategies for enhancing practitioner behavior change and improving patient behavior, knowledge and satisfaction; 2) the factors which determine the success of quality improvement strategies and to what extent these vary by the nature of the problem addressed and the target population; and 3) the factors which influence access to primary care services, and transitions between primary and specialty services.

Projects to evaluate the impact of managed care will constitute a systematic effort to determine the impact of managed care and other changes in the organization of care on health care quality; outcomes; and cost, use and access.

HHS Objective 3.3: Improve Access to and the Effectiveness of Health Care Services for Persons with Specific Needs

AHRQ will examine how various clinical and system characteristics affect the health outcomes, quality access, and satisfaction, for the elderly and chronically ill. In FY 2001, added emphasis will be given to research and tool development to improve care for persons with chronic conditions, including mental health conditions, and disabilities.

HHS Objective 3.4: Protect and Improve Beneficiary Health and Satisfaction with Medicare and Medicaid

AHRQ activities supporting Medicare and Medicaid beneficiaries will include:
1) research on conditions that are common, costly, and for which there is substantial variation in practice, conditions that represent major Medicare or Medicaid expenditures; 2) providing objective, science-based, timely information to health care decision makers-- patients and clinicians, health system leaders, and policy makers; 3) health care surveys, such as CAHPS® and MEPS, that provide information supporting health plan choices and coverage decisions; 4) new tools to assist beneficiaries to choose the most appropriate care for their needs; 5) new tools to measure and improve quality of life for Medicare and Medicaid beneficiaries; and 4) studying the national impact public programs on access and cost of care for children.

HHS Goal 4: Improve the Quality of Health Care and Human Services

HHS Objective 4.1: Promote the Appropriate Use of Effective Health Services

AHRQ is implementing a growing portfolio of evaluations that will show over time the outcomes of the investments of Agency funds. The Agency will evaluate the use and usability of the Medical Expenditures Panel Survey (MEPS) databases for their intended purposes. Other evaluations will assess: 1) evidence reports and technology assessments of evidence-based practice centers; and 2) products that advance methods to measure and improve health-care quality, including clinical quality improvement software (CONQUEST), the Consumer Assessment of Health Plans Survey, and the Expansion of Quality of Care Measures project (Q-SPAN). In FY 2001, added emphasis will be placed on developing the tools, systems, and partnerships that enable quality improvement strategies to be effective in diverse settings, including public providers.

HHS Objective 4.2: Reduce Disparities in the Receipt of Quality Health Care Services

AHRQ will expand its commitment to conducting health services research that will help reduce disparities that exist for racial and ethnic minorities. In particular, the Agency will sponsor research to understand the contribution that racial discrimination makes to existing patterns of care for minority Americans. The Agency will also focus on building infrastructure for relevant research by training minority and other investigators to address issues for minority populations.

HHS Objective 4.3: Increase Consumers' Understanding of Their Health Care Options

The Consumer Assessment of Health Plans (CAHPS®) is a tool for surveying members of health plans about their experience with and assessment of the quality of health care they receive, and for reporting the results to other consumers who are choosing a plan. AHRQ will continue its efforts to enhance CAHPS® and evaluate its use. In FY 2001, additional research will be sponsored to better understand how consumers use quality information.

HHS Goal 5: Improve the Public Health System

HHS Objective 5.1: Improve the Public Health Systems' Capacity to Monitor The Health Status and Identify Threats to the Health of the Nation's Population

AHRQ will develop a fully integrated strategy to create the national capacity to monitor the quality of care, particularly for populations of national interest, including the chronically ill, poor, racial/ethnic minorities, and children. This includes an increase in the scope of the *Medical Expenditure Panel Survey* (MEPS), partnerships with other Federal Agencies and the private sector.

AHRQ will complete the redesign and expansion of the Healthcare Cost and Utilization Project (HCUP) providing state and community decision-makers a powerful set of linked databases they can use to monitor the impact of major system changes on access, quality, outcomes and cost in their states and communities, and to compare these against the progress of other states and communities.

AHRQ will build on past investments in tool development by focusing on expanding the toolbox. These tools will enable purchasers, policymakers, health plans, providers, and patients to improve care.

Goal 6: Strengthen the Nation's Health Sciences Research Enterprise and Enhance Its Productivity

HHS Objective 6.2: Improve the Prevention, Diagnosis, and Treatment of Disease and Disability

AHRQ will fund research on the prevention of functional decline in the elderly, the quality of clinical preventive services, and the prevention of medication and other medical errors.

HHS Objective 6.4:	Increase the Understanding of and Response to the Major Issues Related to the Quality, Financing, Cost, and Cost-Effectiveness of Health Care Services

There are many gaps in knowledge in all areas of health care. New questions emerge as new technologies are developed, the population's demographics change, areas of inquiry previously under-emphasized take on greater importance, and research previously undertaken identifies further areas that need attention. Therefore, AHRQ will continue to focus on creating new knowledge and assessing the findings that result from completed projects.

HHS Objective 6.6:	Improve the Quality of Medical and Health Science Research by Strengthening the Base of Highly Qualified Scientific Investigators

AHRQ will invest in a number of programs to further the training of health services researchers to address the research and analytic needs of the changing health care system. These priorities will build on prior efforts to make both curricula and practical research experiences more relevant to decision makers' concerns about the effectiveness of health care and issues of cost, quality, and access. In addition, an added emphasis is being made on increasing the number of minority investigators at both majority and minority institutions.

HHS Objective 6.7:	Ensure That Research Results Are Effectively Communicated to the Public, Practitioners, and the Scientific Community

Building on the previous 10 years of research findings, AHRQ will identify ongoing gaps between what we know now and what we do in health care and will begin to close those gaps through research and demonstrations that develop and test implementation strategies in different settings in the health care system. A major focus within this is identifying existing implementation strategies in use in health care settings and demonstrating their applicability to wide spread dissemination in other areas of the system.

AHRQ places considerable focus on developing tools and products that facilitate the transfer of research findings into practice. The Agency has a well developed dissemination system that includes publications development, the Publications Clearinghouse, and an award winning Web site. This emphasis is critical to the Agency's success. Ongoing plans include incorporating regular customer feedback into our operations to continue to improve our efforts.

A.4 Performance Measurement Linkages with Budget, Cost Accounting, Information Technology Planning, Capital Planning and Program Evaluation

BUDGET LINKAGE

The performance goals and measures are linked directly to two of the Agency's three budget lines. As described previously, the budget line for Research on Health Care Costs, Quality, and Outcomes has five of the six performance plan goals tied to it. The budget line for the Medical Panel Expenditure Surveys is represented in the sixth goal. The Introduction to Part 2 of this document describes these alignments in detail.

The third budget line, Program Support, has been removed from the performance goals in the AHRQ performance plan. The measures previously reported for Program Support focused on internal management issues for contracts management and information system development. We are dropping the measures because they do not rise to the level of being one of the "critical few" measures that should be reported by the Agency in the GPRA plan. The measures continue to be important, however, and remain in place for internal accountability in the Office of Management Operations Plan and performance plans for the managers and staff.

This year the Agency has provided page numbers, both in the body of the performance plan and in the summary table in section 1.4, to crosswalk the specific measures that are related to the new initiatives proposed in the budget document. Many of the measures are for projects and initiatives that were started in past years and are continuing. This has been noted by identifying the budget connection as "commitment base."

COST ACCOUNTING

AHRQ allocates the full cost of all associated research activities, including overhead costs, by our three budget activities: Research on Health Costs, Quality and Outcomes, Medical Expenditure Panel Surveys, and Program Support.

INFORMATION TECHNOLOGY PLANNING

AHRQ is currently completing the infrastructure for a new integrated information system, the Agency Management Information System (AMIS). The goal of AMIS is to provide access to an integrated set of project information that includes the information currently input through multiple systems. When the AMIS is fully operational all Agency staff will have on-demand access to current information for the entire AHRQ research grant, contract, intramural project, and IAA portfolio. This system is one of the major methods the Agency will use to collect data to document its success in meeting its GPRA goals.

CAPITOL PLANNING

Does not apply to AHRQ.

PROGRAM EVALUATION

Goal 4 in the AHRQ annual performance plan is devoted to reporting the evaluations that the Agency will do in FY 2001. The evaluations are focused on demonstrating the use of Agency research and products and the resulting impact on organizations within the health care system. The focus in FY 2001 are the Evidence-based Practice Centers, the National Guideline Clearinghouse, research findings, quality measurements, and Agency-sponsored training programs. Each represent significant investments of Agency resources and are expected to be in wide use throughout the health care system in FY 2001.

A.5 Reports on Needs Assessment Activities

Outcomes Research

Note: the report on the evaluation study *Outcomes of Outcomes Research at AHCPR* is used as a prime resource for this section. Further discussion of the study can be found in section 4.1 of this GPRA report.

The full *Outcomes of Outcomes Research at AHCPR* report may be obtained by contacting Joanne Book at (301) 594-4039 or at Center for Outcomes and Effectiveness Research, AHRQ, 6010 Executive Boulevard, Rockville, MD 20852. The report will also be available of the Agency's web site: http://www.ahrq.gov/clinic/outcosum.htm

Background

In 1998-9, following a decade of investment in outcomes and effectiveness research (OER), AHRQ pursued several activities in needs assessment and evaluation to assure that future research investments would be informed by both a clear understanding of our customers' needs and an evaluation of prior successes and lessons learned. We held several meetings with stakeholders to obtain their input on future priorities; we also conducted quantitative analyses to set the stage for discussion. We also conducted an evaluation titled *The Outcome of Outcomes Research at AHCPR* .

Consultation with stakeholders helped us identify several important customer needs:

- More focus on outcomes improvement, i.e., understanding "what works" must be linked with strategies to enhance behavior and practice change.
- A need for practical tools as well as publications. As one systems leader stated: "My job is to implement this research in my organization. What would make my job much easier is to get the chart review forms and other tools used by the researchers, rather than having to re-develop them myself."
- Development of practice-based laboratories that can move the conduct of research closer to practice.
- A strong interest in providing input to research initiatives in the formative phases.

The evaluation, conducted by the consulting firm, The Lewin Group, was designed to:

- Develop a framework for understanding and communicating the impact of OER on health care practice and outcomes.
- Identify specific projects that illustrate the research impact framework.
- Derive lessons and options from past efforts that can help develop strategies to increase the measurable impact of future research sponsored by AHCPR. [1]

In addition to this report, the authors have written or contributed to several recent review articles about outcomes and effectiveness research. [2,3,4]

Framework for assessing impact

A framework was developed that outlines an idealized process by which basic findings in OER are linked over time to increasingly concrete impacts on the health of patients. The four levels of impact are:

Level 1: Findings that contribute to but do not alone effect a direct change in policy or practice. These findings may add to an areas knowledge base and help focus subsequent research.
Level 2: Research that prompts the creation of a new policy or program.
Level 3: A change in practice, i.e., what clinicians or patients do.
Level 4: Actual changes in health outcomes.

This framework provided a context for linking progress in basic studies with changes in practice and improvement in outcomes.

Perspectives of principal investigators

Based on the premise that the researchers should have a clear understanding of their most important findings, a survey was mailed to all principal investigators (PIs) funded by COER during the period 1989-97, asking them to describe their most important work.[5] Of the 95 PIs contacted, responses were received from 61 (64 percent). Results from the survey suggest that PIs have been most successful in providing increasingly accurate and detailed descriptions of what actually occurs in health care, developing tools for measuring costs of care and patient-reported outcomes, and identifying topics for future research. Few PIs reported findings that provide definitive information about the relative superiority of one treatment strategy over another. There also were relatively few examples of findings that have been incorporated into policy (level 2 impacts) or clinical decisions (level 3), or interventions that have measurably improved quality or decreased costs of care (level 4). *One of the main challenges for the next generation of outcomes studies is to move from description and development of methods to problem solving and quality improvement.*

OER accomplishments

At least three conceptual developments have been strongly influenced by AHRQ-sponsored work:

- The increasing recognition that evidence, rather than opinion, should guide clinical decisionmaking.
- The acceptance that a broader range of patient outcomes need to be measured in order to understand the true benefits and risks of health care interventions.
- The perspective that research priorities should be guided in part by public health needs.

Other accomplishments include:

- OER studies have often provided descriptive data that challenged prevailing clinical ideas about how best to manage specific clinical problems.
- Tools and analytic methods have been developed, including strategies for conducting systematic reviews and meta-analysis

(now used by AHRQ's Evidence-based Practice Centers and others), instruments for measuring health outcomes important to patients, and sophisticated techniques for analyzing observational data to adjust for disease severity and minimize bias.

- A growing appreciation of evidence-based medicine as a guiding framework for decisionmaking has intensified interest among clinicians, health systems leaders, and purchasers in information about the relationship between clinical and organizational interventions and patient outcomes. In particular, recent interest in quality measurement and improvement has resulted in increasing use of OER results as the basis for performance measures for report cards and accreditation.

Lessons learned about OER

Lessons were learned about study designs, use of data, and associated bias. Further work is needed to explore more systematically how to associate the features of a particular clinical problem with the most appropriate tools and methods to study that problem (given that the goal is to promote decisions that will improve outcomes of care). Additionally, research and experience have demonstrated that development and dissemination of high-quality, highly credible information is necessary to alter practices, but it is not enough. *Enhanced knowledge must be linked with supportive practice environments and active implementation efforts*.

Recommendations for future directions:

AHRQ can take steps to maintain its strength in methods and tools development, while increasing support for studies with greater potential for impact.
Response: In FY 2000 two targeted research solicitations address methods development for understanding and eliminating racial and ethnic disparities in health care, and evaluation of strategies for translating research into practice. Grantees are expected to address explicitly how their methods and approaches will inform the needs of clinicians, health systems leaders and policy makers.

AHRQ could play a more active role in the transfer of knowledge and documenting change when it occurs.
Response: In addition to supporting targeted research solicitations focused on translating research into practice in FY 99 and FY 2000, AHRQ will develop and implement a plan for making tools as well as information available to decision makers.

AHRQ could take on greater responsibility to make sure that once these critical knowledge gaps are identified, they are addressed in follow-on studies.
Response: This will be a high priority in FY 2000, and this effort could be combined with a strategy for addressing the research agendas now generated by the Evidence-based Practice Centers.

AHRQ should leverage resources by seeking new partnerships in addition to maintaining collaborative efforts with HCFA and other payors, MCOs

and medical groups, medical professional organizations, peer review organizations, and medical product manufacturers. Collaboration with these organizations would ensure that potential studies are crafted to meet the applied needs of these organizations.
Response: A forthcoming task order contract with integrated delivery systems will provide a mechanism for working with health plans to use methods and information from OER. In addition, we have recently begun to solicit feedback from participants at AHRQ's User Liaison Program meetings on an ongoing basis about future research priorities. The new CERTs program also provides a mechanism for supporting public-private partnerships to improve the use of therapeutics.

There is a need for more attention to developing innovative methods and strategies for efficiently addressing the large number of unanswered questions about effectiveness and cost-effectiveness, that incorporate relevant environmental characteristics. There has been no concerted effort to craft a new methodological, organizational, and ethical framework for these studies. The conceptual infrastructure for conducting effectiveness trials needs further development.
Response: A methodological conference in October, 1999 provided a forum for preliminary development of a new approach to assessing the effectiveness of clinical and organizational interventions. This conceptual work will continue in FY 2000.

Improvements in outcomes measures and development strategies to encourage their routine use are an essential future direction.
Response: AHRQ is soliciting research to encourage expanded use of outcomes measures in routine practice, and will use the new task order contract with integrated delivery systems for pilot demonstrations.

The Agency should consider developing the capacity to identify important research findings (generally level 1 impacts) and to assist to moving to higher levels.
Response: This is a high priority for FY 2000.

A high level of interaction with stakeholders in the health care system will ensure that the basic studies are supportive of real problems faced by those involved in health care delivery.
Response: We have developed and implemented several strategies to consult with stakeholders and customers on an ongoing basis: periodic meetings; publication of *Federal Register* notices to obtain input from customers prior to publishing a research initiative (done this year for CERTs and translating research into practice); soliciting feedback from participants in AHRQ's User Liaison Program meetings; periodic consultation with the National Advisory Council and others as we develop future initiatives.

AHRQ should support the development of practice-based laboratories that can move the conduct of research closer to practice.
Response: Two FY 2000 initiatives, for practice-based research networks in primary care and a task order contract with integrated delivery systems, address this issue.

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Quality Research

Healthcare quality, defined by the Institute of Medicine as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with professional knowledge,"[1] has proven far more difficult to measure and improve than to define.[2] Traditionally the assessment of quality in healthcare was accomplished through judgement of individual actions supplemented with the collection of standards such as medical credentials and the clinical capabilities of a facility. Case review, subjective judgements of the skills of providers, facility inspections, and documentation of training comprised the bulk of quality measurement. Over the last few years, however, patients, providers, purchasers, and policymakers have demanded more sophisticated means of measuring quality in healthcare.[3] Quality of care is now measured through a combination of characteristics of the health care provider(s) and services (procedures or tests) that result in better outcomes for the patient. It can be measured through either experiential ratings or clinical performance measures. When the health care provider and services (procedures) combine to improve the condition of the patient and the patient is satisfied with his or her condition, this is said to be good quality care. Quality is doing the right thing, for the right patient, at the right time, with the best results. AHRQ's efforts on improving quality have focused in three areas: quality measurement, quality improvement, and reporting of quality.

This specification of our quality agenda is based on both formal and informal conversations with a wide range of users (and potential users) of AHRQ quality measurement products. Through our participation in the Committee on Performance Measurement (CPM) of the National Committee for Quality Assurance (NCQA), we learned of the need for a broader array of quality measures, particularly for vulnerable populations. This need was underscored by the National Rehabilitation Hospital Research Center and by members of AHRQ's own Advisory Committee. The Consumer Assessment of Health Plans (CAHPS®) project has provided numerous and regular opportunities for feedback from product users. CAHPS® schedules two user meetings each year as a means of training new users and obtaining feedback about existing products (and the need for new products) from current users. From these meetings, and from meetings of the CAHPS® grantee advisory committee, we learned of the need for a CAHPS® instrument which would allow patients to assess the quality of care provided by their doctors, medical groups, and clinics. The need for individual provider, group or institutional level instruments has also been expressed by the American Medical Association and the Joint Commission on Accreditation of Healthcare Organizations. Development and testing of this instrument is on the CAHPS® agenda for the coming year. Both CAHPS® users and the Work Group on Consumer Health Information have impressed on AHRQ the need for evaluation of the effects of different reporting formats on the usability of quality information and how quality reports affect consumer/patient behavior. To determine the priority needs for quality measurement products for care given to children, AHRQ convened an expert meeting in 1999 along with other major children's health organizations such as the David and Lucile Packard Foundation and the American Association of Pediatrics. On a more "macro" level, the American Health Quality Association has underscored the importance of development of fundamental knowledge of what works in quality improvement in which generic situations. And experts from the United Kingdom and Europe (assembled at last year's Leeds Castle conference) recommended that CQMI analyze the success of various mechanisms for translating research into practice.

The Quality Interagency Council or QuIC has given AHRQ the opportunity to obtain feedback from our federal partners which has shaped our quality agenda. A subgroup of the QuIC related to the working conditions of health care workers has encouraged us to consider the development of new structural measures of health care capturing the influence of worker safety and working conditions on the quality of patient care.

1. Meeting the Need for a Wider Array of Quality Measures

Our pursuit of healthcare quality indicators and performance measures has resulted in a rapidly evolving and growing field of health services research producing an increasingly complex array of quality yardsticks.[4] Research sponsored by the AHRQhas played a fundamental role in developing measures. In addition, accrediting bodies such as the National Committee for Quality Assurance (NCQA) and the Joint Commission on Accreditation of Healthcare Organizations have pushed the field significantly with their demands for valid evidence-based metrics. As a result of these trends the Agency for Healthcare Research and Quality's COmputerized Needs-Oriented QUality Measurement Evaluation SysTem (CONQUEST) for collecting and evaluating clinical performance measures now has nearly 1200 entries.[5] This growth has required the development of an informal method of classifying measures.

Despite the explosive growth in quality measures, there are still major gaps in our capacity to capture important components of "quality" when examined against the framework of that taxonomy. There are a number of assessment instruments to facilitate consumers making choices among health plans, most notably the AHCPR sponsored Consumer Assessment of Health Plans (CAHPS®) family of surveys,[6] yet few measures which assist consumers in making choices between individual providers beyond the advice of trusted friends and relatives. For some common clinical conditions, such as heart failure, there are a number of evidence based and validated quality measures. But other common conditions which also have a major impact on quality of life and functional status, such as osteoarthritis and depression, have few extant measures that meet those criteria. A number of measures exist which can be applied to relatively healthy insured populations but few are applicable to the most vulnerable segments of our population including children,[7] those with chronic illness, disability, or the uninsured. Even where measures exist there are fundamental questions to be resolved including whether the data should be risk adjusted and how it should be reported to various decisionmakers on the clinical, organizational, and policymaking levels. Seemingly simple questions, such as whether the quality of healthcare in the United States is improving or declining, cannot be answered with the current measurement capacity.[8] In summary, we have an ever increasing array of evidence based and validated quality measures yet they still only apply to a relatively narrow set of measurement levels, conditions, and populations. As a result consumers, providers, and policymakers are often forced to rely on subjective judgements to inform important decisions regarding healthcare.[9]

The goal of research initiatives in quality measurement at the Agency are focused on broadening the availability of quality measures. In FY 1999 these activities included efforts at expanding quality measurement to the most vulnerable populations and beginning efforts to extend measurement down from the health plan level to the provider level. Specific activities included:

Quality Measurement for Vulnerable Populations RFA (HS-99-01) to develop and test new quality measures that can be used in the purchase or improvement of health care services for populations identified as vulnerable in the “Quality First, The President’s Commission on Consumer Protection and Quality in the Health Care Industry” (Commission) report. Funded grants under this RFA include:

- **HS10299, *Measuring Patient Satisfaction: Low Literacy Populations***
- **HS10328, *Measuring the Quality of Care for HighRisk Infants***
- **HS10316, *A Patient-Centered Quality Measure for Asian-Americans***
- **HS10317, *Measuring Quality of Care for Vulnerable Children***
- **HS10315, *Quality Measurement in Residential Care***
- **HS10318, *Prescription Benefits As A Quality Measure***
- **HS10333, *Computerized Tool Assessment in Low Literacy Patients***
- **HS10332, *Measuring the Qaulity of Care for Diabetes***
- **HS10322, *Facility Effects on Racial Differences in New Hampshire Quality***
- **HS10303, *Quality Measures for Severe/Persistent Mental Illness***
- **HS10335, *Cultural Relevance of a Community of Care Measure***
- **HS10295, *Using Census Data to Monitor Care to Vulnerable Groups***

We also initiated an effort to develop a provider level CAHPS instrument with an expert meeting in FY 99.

2. Developing the Basic Science of Quality Improvement

Although advances in the measurement of quality are a necessary component of health care quality improvement, they alone are not sufficient. Progress in quality measurement has not been complemented by comparable advancement in our ability to systematically translate that information into improvement.[10] As a result, a substantial gap between quality information and improvement has developed which is likely to grow without focused research to provide an evidence base for the application of quality improvement strategies in clinical policy making. This was recognized by the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry, which recommended the continued development and dissemination of evidence-based information to guide management policies that can improve health care quality.[11]

Over the last 3 decades a variety of approaches have been used to foster quality improvement in health care. The adoption of industrial models for quality improvement has been one method for addressing variations in health care quality.[12] Additional methods employed to improve health care quality have included the use of regulations, focused incentives, behavioral interventions, academic detailing, and the use of information systems. There have been some documented success stories in applying these techniques to quality improvement.[13] Recent state and regional efforts have also attested to the potential of quality improvement efforts for specific conditions such as ischemic heart disease.[14] [15]

Despite these successes, health care quality improvement efforts have often been met with skepticism from both providers and policy makers. The few published evaluations of the value of quality improvement efforts which have been conducted to date have shown mixed results. For example, the application of continuous quality improvement to the management of clinical outcomes has shown some promise in non-randomized studies, but randomized trials have failed to show a meaningful impact on clinical outcomes or organization wide improvement.[16] Recent work has identified the significant barriers to the successful application of continuous quality improvement in health care which may provide a first step to overcoming them.[17] Successful quality improvement programs have usually been conducted in single institutions, addressed one condition with one intervention, had modest sample sizes, and used historical controls. Consequently, the interpretation of these results and their generalizability have limited their utility in achieving more global improvements in health care.

This situation is unlikely to change without a fundamental understanding of which quality improvement efforts work for particular conditions, populations and circumstances; the use of complementary strategies; and collaboration between provider institutions and organizations aimed at improving quality. Quality improvement efforts resulting in error reduction, enhanced patient safety, improvements in appropriateness, service enhancements, and waste reduction are plausible solutions to provide Americans with high quality care at reasonable cost.[18] A first step in this process to harness the potential of quality improvement is a rigorous analysis of improvement strategies to build a fundamental "basic science" understanding of the relative merits of these strategies. That understanding will foster the appropriate application of quality improvement techniques in the future.

The goal of research initiatives in quality improvement at the Agency are focused on developing a fundamental and generalizable picture of what works to improve quality. Specific activities in FY 1999 included:

Translating Research Into Practice RFA (HS-99-003) to generate new knowledge about approaches, both innovative and established, which are effective and cost effective in promoting the use of rigorously derived evidence in clinical settings and lead to improved health practice and sustained practitioner behavior change (with particular interest in studies that implement AHRQ-supported evidence-based tools and information).

Selected grants funded under this RFA include:

- **HS10537*, Do Urine Tests Increase Chlamydia Screening in Teens?***
- **HS10479*, Improving Diabetes Care Collaboratively in the Community***
- **HS10528**, ***Evidence-Based Surfactant Therapy for Preterm Infants***
- **HS10510, *Practice Profiling to Increase Tobacco Cessation***

Assessment of Quality Improvement Strategies in Health Care RFA (HS-99-002) to evaluate strategies for improving health care quality which are currently in widespread use by organized quality improvement systems (projects that would expand the conceptual and methodological basis for improving clinical quality and analyze the relative utility and costs of various approaches to quality improvement).

Selected grants funded under this RFA include:

- **HS10408, *Organizational Determinants of HIV Care Improvement***
- **HS10402, *Improving Heart Failure Care in Minority Communities***
- **HS10403, *Strategies for Continuous Quality Improvement (CQI) Efforts: A National Randomized Trial***
- **HS10407, *Hospital Performance and Beta-Blocker Use After MI***
- **HS10401, *Evaluating Quality Improvement Strategies***

3. Improving the impact of quality information: Making Quality Count

The perfect quality measurement system is of limited value if that information is not accessible to decision-makers. A particular immediate challenge in this area is providing reports to the public on quality which provide meaningful information.[19] To date the attention paid to the development of measures has been far greater than that given to the creation of reporting formats. Serious challenges lie ahead in the development of quality reports including variations in the graphical presentation of information, availability at the time decisions are made, and the need to adjust the information to the audience.[20] Additional challenges include ensuring that the information presented is balanced and fair, particularly with respect to differences in case-mix.[21]

The goal of research initiatives in quality reporting at the Agency are focused on developing an evidence-based approach to developing meaningful information for decision-makers. Specific activities in FY 1999 included:

Making Quality Count Expert Meeting to bring together researchers, media specialists, and users of quality information to discuss the specific needs for reporting research. The research agenda derived from this meeting will be the basis for further activities in this area beginning in FY 2000.

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Access Research

“Access” refers to “the timely use of health services to achieve the best possible outcomes.” (IOM, 1993).

Many factors can limit access. Past research has told us a great deal about financial barriers facing individuals and families (insurance and income). From the Medical Expenditure Panel Survey (MEPS) we know that two of the primary barriers to receiving needed health care reported by American families are the inability to afford needed care and factors associated with health insurance, together accounting for nearly 80 percent of reported difficulties (Weinick, Zuvekas, and Drilea 1997). In a health care system dominated by employer-sponsored insurance, individuals’ access to such coverage, as well as factors associated with choice of coverage, premium costs to individuals, and benefit structure all have a considerable impact on financial access to care. Access to private, employer-sponsored health insurance has number of dimensions: whether employers offer plans to their employees, the choice of plans employees face and their premium cost to employees, the structure of benefits, and the process by which households and families make decisions concerning health insurance coverage. Research at AHRQ has answered a number of the policy-related questions and contributed to our collective knowledge about employer-based coverage.

However, we know much less about providers’ and health plans’ financial incentives and disincentives to assure access, and much less about the critical non-financial barriers facing individuals, families, providers and plans.

In recent years leaders from within the field of health service research have stepped forward in acknowledging deficiencies in access research, and in particular how to measure access and gaps in our knowledge of barriers. In a 1998 issue of *Health Affairs*, Marc Berk and Claudia L. Schur lament that “despite more than sixty years of conducting major national health surveys, we have not reached consensus about the number of Americans who do not receive adequate health care or whether access is getting better or worse….Even the most thoughtful persons find it difficult to disentangle the research on access… policy-makers recognize that millions of Americans are unable to obtain adequate health care and that informed debate is necessary if viable solutions are to be found. But carrying on this debate is difficult when health services researchers cannot agree about key aspects of the problem."

Access is an important area for the Agency - targeted first among the triad of strategic goals related to 'access, cost and use' for comprehensive agenda development. Beginning in 1997, the Agency has undertaken a variety of needs assessment activities to build an access agenda and has begun exploring potential partnerships that might play a role in executing the agenda. In January 1997, the Agency convened a meeting of stakeholders to explore and discuss, among other things, emerging access issues associated with managed care.

In November 1998, the Agency sought input from its National Advisory Council (NAC) on the Agency's role in developing the scientific basis for policy decisions affecting access. A consensus has emerged that the policy issues affecting access have changed in the past decade - e.g., as the predominant form of insurance shifted from fee-for-service to managed care, and as Americans have become more culturally diverse - and that they vary from one market area to another. Council members supported Agency involvement in access and posed particular policy-relevant research for consideration on the access agenda (Minutes, November 1998 NAC meeting). Needs assessment related to access is ongoing and will continue into 2000 as the Agency prepares to execute its omnibus access agenda in 2001.

The Agency's access agenda-in-progress is organized into the following five domains: I) insurance coverage and other financial issues facing families; II) access for persons at high risk for utilization enrolled in managed care; III) access in rural areas; IV) access among minorities; and V) access among children. For each domain, meetings with users -- stakeholder meetings - important in helping AHRQ build its access agenda are identified, and key research findings informing future research-related needs are summarized. Draft Agency priorities, gleaned from these two sources, are then listed; these draft priorities for future work in each of the domains span research, data (including enhancements to MEPS, HCUP and CAHPS), tools , measures, and extramural training needs.

Domain I: Insurance coverage and other financial issues facing families

97-99 stakeholder meetings:

Association for Health Services Research meeting, June 1999. Presentations and discussion with researchers and policy-makers on*: Border Crossings -- Piercing the Boundary Between Private and Public Coverage*; and on *Assessing Health Plan Choice in the United States*.

American Enterprise Institute meeting, November 1999. . Presentations and discussion with researchers and policy-makers on Employer Contributions and Health Insurance Premiums -- Does Managed Competition Work?

Findings from intramural and/or extramural research related to future research needs:

Although the primary source of private coverage in the United States remains the employment-based health insurance system, such coverage is not accessible to all American families. Research is required to assess both the equity and efficiency of the current employment-based system and to determine whether lack of coverage reflects issues of affordability, other non-price impediments to coverage, or both factors. Current research needs include studies to determine how out-of-pocket premium costs, incentives associated with the tax subsidy for employer-based coverage, and employer premium contributions affect decisions to participate in health plans as well as the kinds of plans selected. Research is also required to determine the nature of employee preferences for coverage, specifically, the kinds of coverage that are valued and the willingness of employees in different economic circumstances to trade wage income for health insurance benefits. Such decision making becomes increasingly complex among households with two working spouses, when employers provide several plans to choose from, and when the benefits and premium contribution schemes differ among offered health plans. Research is also required to assess the willingness of employers to offer health benefits, to describe the kinds of health plans made available, and to examine whether the provision of plans with differing benefits, out-of-pocket costs, and contribution schemes is associated with adverse selection by persons with particular kinds of health problems. At the same time, it will be important to assess whether the provision of health plan choice leads to greater consumer satisfaction with their coverage and to examine the implications of expanded plan choice and the types of plans selected on the use of health care services and quality of care received. Given policy interest in the effectiveness of managed competition, research is required to assess whether expanded health plan choice and existing premium contribution arrangements effectively promote competition among health plans and contribute to lower health plan costs. Finally, research is required to examine the extent to which current health plans do protect consumers from the risk of excessive health care expenditures and whether efforts to improve employee access to coverage in the small group insurance market have been successful. (*From research by Monheit and Vistnes 1999; Schone and Cooper 1999; Vistnes, Cooper, and Vistnes 1999; Zuvekas, Banthin, and Selden 1998; Monheit, Schone, and Taylor 1999; Cooper and Schone 1997; and Monheit and Schone 1999.)*

There is considerable research interest in assessing whether efforts to expand public insurance coverage to specific population groups have been successful in reducing uninsured rates, improving access to and use of health services, and in improving health outcomes. Research is required to assess whether specific kinds of outreach programs associated with expanded coverage have been successful in raising enrollment rates and the extent to which expansion of public coverage to groups with incomes above the poverty level will result in a crowding out of other sources of insurance coverage. Moreover, given efforts to enroll the Medicaid and Medicare populations in managed care plans, research is needed to assess the stability of enrollment in such plans, whether such plans engage in favorable enrollee selection, the impact of such plans on the costs of care relative to traditional Medicare and Medicaid plans, and whether such plans yield disparities in treatment and health outcomes compared to enrollees in public programs reimbursed via fee-for-service. Finally, there is continuing interest in assessing the role that supplemental Medigap coverage plays on the expenditures of this population and whether enrollment in such plans is governed by adverse selection. (*From research by Selden, Banthin, and Cohen 1998; Selden, Banthin, and Cohen 1999; and Vistnes and Banthin 1997.)*

Recommendations for future research, data, measures, tools, and training:

- Research on the role that out-of-pocket health insurance costs have on the access to coverage of low-income workers.
- Research on how health insurance benefit structure affects access to care for both mental and physical health coverage.
- Research on processes by which households make their health insurance coverage decisions for both private and public plans, including the choices they face, the information available to them as they make their decisions, and how they evaluate their options.
- Research on the role that health insurance coverage plays in obtaining needed health care services, including the financial and non-financial (e.g., gatekeepers) effects that plans may have.
- Evaluation of outreach efforts for expanding public health insurance enrollment for children.

Domain II: Access for groups at increased risk for under-service in managed care plans

97-99 stakeholder meetings:

- Expert Meeting on Markets and Managed Care, January 1997.
- Medpac session on access for Medicare beneficiaries, December 99
- In addition, AHRQ will be sponsoring a February 2000 stakeholders' meeting on HIV research.

Findings from intramural and/or extramural research related to future research needs:

Nicole Lurie (*HSR*, December 1997) reviews the study of access in managed care environments. "Concerns about the profit and cost-cutting motives of managed care organizations abound, and are combined with increasingly frequent anecdotes and projections of decreased access to care. The debate is emotional and highly visible, yet the data are scant. Prior research on access to care can only partially illuminate the issues at hand…. [Research is needed] to sort out which system characteristics, financial characteristics, for profit status, and so forth-seem to matter, not only for maintaining access, but for expanding it.” Lurie identifies a need for research on managed care issues related to special populations, such as low-income and Medicaid enrollees, individuals needing mental health care, children with special health care needs. In a companion *HSR* article, Edward Wagner focus on another special population -- the chronically ill - and asserts may have the most to gain or lose by managed care. “…we are experiencing unprecedented, unevaluated tinkering with basic care models…Patients with major chronic illnesses and disabilities are most at risk if this tinkering’ disrupts critical health care relationships or reduces access to [] needed services.”

Recommendations for future research, data, measures, tools and training:

- Expansion of access measures for managed care enrollees, especially those special populations at risk of under-service
- Research on access for special populations at increased risk for under-service, such as the chronically ill, the disabled, the elderly and those with costly conditions (e.g., HIV infection, mental illness, substance abuse)
- HIV database (DCC)
- Adding the coding of ‘Medicaid HMO’ as a criteria in selecting additional state HCUP partners.

Domain III:
Access in rural areas

97-99 stakeholder meetings:

- Quarterly meetings throughout 1998-99 of the Capital Area Rural Health Roundtable.
- National Rural Health Association Annual Conference in May, 1999.
- Director's meeting of Rural Health Research Centers (sponsored by HRSA) in October, 1999.
- State Rural Health Association meeting, October, 1999.

In addition, AHRQ will be co-sponsoring with the Office of Rural Health Policy, HRSA -- a national invitational conference in Washington, D.C. in January 2000, the purpose of which is to develop a research agenda on rural health for the next ten years. This agenda will include a focus on access issues.

Findings from intramural and/or extramural research related to future research needs:

Traditional indicators of access to care -- proportion of population with a usual source of care, and proportion of population with a hospital admission -- appear to be less useful today in the study of rural areas as a result of significant losses of medical providers in these areas (making a local source of care less likely even for the well insured) and the rapid closing of a number of rural hospitals (Hayward, 1991; Ricketts, 1999).

Much research examining access issues in rural areas has therefore focused instead on differences in health status and utilization of available health services in urban vs rural populations. MEPS data indicate that rural Americans report more chronic conditions and describe themselves as being in poorer health than their urban counterparts (Weinick, Zuvekas, Drilea, 1997). In addition, studies of the effect of state policies on childhood immunization rates indicate that heavy reliance on public sector programs does not alone ensure timely receipt of vaccines by rural residents. Buffering the effect of poverty on receipt of immunization by children living in rural areas appears to require a collaboration between the public and private sectors. (Mayer et al, 1999).

Evaluations of the effect of local managed care penetration on access in rural areas have yielded less than encouraging results. A ten state study of Medicaid managed care in rural areas (supported by AHRQ) has questioned the benefits that these programs produce for rural beneficiaries and has suggested that the effort required to implement the program in rural areas may have actually increased the overall costs of care without truly having an impact on access (Felt-Lisk et al, 1999). In addition, a number of states have developed demonstration programs on methods of establishing managed care programs in rural areas. The overall effect of these programs on access to care remains unclear.

Published research has yet to address adequately the following issues: improving transportation access to health care services for rural community members; organizing emergency medical services to ensure regional access; understanding the consequences of telemedicine technology adoption and diffusion in rural regions; coordinating rural case management services across health and social services providers; improving the availability of mental health and substance abuse treatment services in rural areas; and improving the ability of rural communities to recruit and retain health care professionals.

Recommendations for future research, data, measures, tools and training:

- Expansion of access measures to address issues specific to rural areas, including transportation access and penetration of managed care.
- Development of a rural HCUP hospital database.
- Development of a rural HCUP emergency department database.
- Development of capacity of primary care practice-based research networks to conduct research on underserved populations living in rural areas (1999 RFA on PBRNs)
- Research on recruitment and retention of health care professionals for rural communities (one R03 -- Pathman -- already funded); and outcomes and costs associated with adoption of telemedicine technology by rural providers and patients.
- Research on market impacts on rural populations (1999 markets RFA)

Domain IV:
Minority population’s access

97-99 stakeholder meetings:

- Kaiser Family Foundation's conference on racial and ethnic disparities, October 1999 (co-funded by AHCPR)
- HCUP partners' meeting, May 99
- AHRQ expert meeting on Future Directions for Health Services Research Regarding Racial and Ethnic Minority Populations, May 13, 1999.

Findings from intramural and/or extramural research related to future research needs:

Racial and ethnic health disparities have been documented at every point in the health care system - in the incidence of disease, in access to and utilization and quality of health services, and in health outcomes. With minority Americans expected to comprise over 40 percent of the U. S. population by 2035, and 47 percent by 2050 (U.S. Bureau of the Census 1996), addressing these disparities has become an increasingly visible public policy goal (U.S. Department of Health and Human Services [DHHS] 1998; Agency for Health Care Policy and Research [AHCPR] 1999; U.S. DHHS 1999).

Some argue that elimination of financial differences in access would profoundly reduce health disparities (Andrulis 1998; Schur, Albers and Berk 1995). Clearly there are disparities in health insurance coverage. MEPS has found that Hispanics and blacks were much more likely than whites to be uninsured (Kass, Weinick, and Monheit 1999). Nevertheless, disparities have been documented within health systems that provide equal financial benefits to all covered individuals – such as the Veterans Health Administration, Medicare, or single health plans (Oddone et al. 1999; Whittle et al. 1993; Goldberg et al. 1992; Robbins, Whittemore, and Van Den Eeden 1998; Carlisle, Leake, and Shapiro 1997; Peterson et al. 1994; Ayanian et al. 1993). This indicates that linguistic and cultural barriers as well as financial ones make it hard for individuals from racial and ethnic minority groups to obtain appropriate health care.

Members of different racial and ethnic groups vary in language, cultural beliefs, health behaviors, and health preferences, and therefore the delivery of health care must be altered if it is to meet their differing needs. While acknowledging that everyone would benefit from health care systems adopting more patient-centered approaches to delivering care (Delbanco 1992; Silberman 1992), particular attention should be paid to minority populations because that is where the gap between the prevailing health system and the needs of patients is greatest.

While there is a large literature on racial and ethnic disparities in health care (Mayberry et al. 1999), it has focused on rigorously documenting the disparities, an important contribution of outcomes and effectiveness research and health services research. Nevertheless, these insights have infrequently led to significant improvements in racial and ethnic disparities, in part, because the causes of and contributing factors to these inequalities are inadequately understood

Cultural competency (the ability of health care systems and their clinicians to deliver to diverse populations appropriate services that lead to good outcomes) has the potential to help improve access by minority populations and decrease disparities. However, the research on cultural competency has not linked cultural competency with outcomes that could be expected to follow from cultural competency activities. The application of cultural competency to organized health systems such as managed care organizations has not received needed scholarly attention. Lack of cultural competency measures hinder both the testing of cultural competency's theoretical premises and health systems' ability to monitor and improve their own performance. *(Excerpts from Cultural Competency: A Tool for Health Systems to Reduce Racial and Ethnic Health Disparities, submitted for publication December 1999, by Brach and Fraser, and the AHRQ RFA Understanding And Eliminating Minority Health Disparities.)*

Recommendations for future research, data, measures, tools and training:

- Minority HCUP database
- Development of HCUP emergency department data
- Research on market impacts on minority populations (1999 markets RFA)
- Intramural chartbook analyzing hospitalizations among minorities
- Working with NCHS to have race/ethnicity added to the HIPAA standard for the institutional claim.
- In HCUP data, the need to preserve rich, state-specific data on race/ethnicity (i.e., in certain states) while at the same time adding a recoded variable that conforms to HIPAA standards.
- A research agenda that balances short-term and long-term needs, and balances descriptive research with evaluative approaches, and includes: cultural competence, institutional racism, and the patient/provider relationship; understanding the causes of health disparities and identifying strategies to eliminate them (1999 disparities rfa); the influence of managed care on minority health; rapidly changing nature of the health care marketplace and the means by which populations and their needs are identified; community and population characteristics must be examined in order to identify the needs of specific populations; effect of violence and substance abuse on care provided to minority populations
- Identify innovative strategies for involving communities of color in research
- Increase the participation in health services research of minority researchers, minority institutions, and institutions that serve minority populations and increase capacity to study minority health issues among non-minority researchers.

Domain V:
Children's access to insurance and to care

97-99 stakeholder meetings:

- AHSR’s Improving Quality of Health Care for Children: An Agenda for Research, May 1997, which was co-funded by AHRQ
- MEPS and Child Health Analyses Expert Meeting, February 1997
- Learning from CHIP I, March 98
- November 1998 NAC meeting discussion
- Learning from CHIP II, June 98
- AAP meeting, May 98 [see cite below]
- ULP dialogues with states, June 98, August 98
- Coordinating committee for CHIP RFA, November 99
- HCUP state partners’ meeting, May 99
- Expert Meeting on Quality Improvement for Children and Adolescents, April 1999

Findings from intramural and/or extramural research related to future research needs:

Recent policy changes have attempted to increase children's health insurance coverage and access to care so that children can obtain health care that is appropriate to their developmental needs. In the last decade, the Medicaid program has been expanded and the State Children’s Health Insurance Program has been initiated to decrease the proportion of children who are uninsured. However, MEPS data suggest that: 1) in spite of these initiatives, a substantial number of children in American remain uninsured; 2) Black and Hispanic children are at increased risk of adverse outcomes, including being uninsured and being in poor health; 3) having a working parent is not enough to ensure children's access to private health insurance; 4) the most common reason children do not get needed health care is because their families cannot afford it; and 5) public coverage is a critical factor in providing insurance for children with health problems. (Excerpts from Children's Health 1996: MEPS Chartbook No. 1, by Weigers, Weinick, and Cohen 1998)

The consequences of lacking insurance have been fairly well documented: children and adolescents are less likely to see a physician, be immunized, receive appropriate well-child care, receive timely treatment for acute health problems, and are more likely to have unmet health care needs (Weigers, Weinick, and Cohen 1998; Newacheck et al. 1999). Yet the reasons why many children eligible for public insurance have not enrolled are poorly understood, and we are only beginning to understand other problems experienced by certain subpopulations of children in accessing health services. For example, researchers, including those supported by AHRQ, have documented how other factors, including legal, organizational, and interpersonal factors, present barriers to access and use for adolescents.

Studies of adult access to care cannot serve as a proxy for several reasons. First, adults and children have different epidemiology of health and health care (e.g., more need for disease prevention and health promotion services among children and adolescents; issues of transitions between child- and adult-oriented health care providers and settings for adolescents with chronic illnesses and disabilities). Second, children are dependent on adults, particularly parents, for access. Third, children are demographically different (high numbers of children and adolescents in poor families). Fourth, children's high rate of developmental change necessitates different levels and types of access. And fifth, children and adolescents are involved in a wide range of systems beyond mainstream health (e.g., school-based services, mental health and substance abuse clinics, reproductive health clinics). Currently there is little understanding how these services do or do not interrelate with the mainstream health system to promote optimal health care. When asked about priority areas for children's health services research in November 1998, AHRQ's National Advisory Council advised that AHRQ expand beyond its traditional focus on mainstream health care delivery systems. Other stakeholders, responding to invitations to comment on AHRQ's overall Strategic Plan, recommended that AHRQ: 1) evaluate changes in the organization, delivery, and financing of children's health care services; 2) focus on access related to children's hospitals and hospital-based services; and 3) contribute to HHS strategic plan objectives to improve access to care for persons with specific needs, and to increase the availability of primary health care services.

Managed care's impact must also factor into any inquiry regarding children's access to health services. Children appear to be somewhat more likely to be covered by managed care plans than adults, with 22.2% percent of all children under age 20 versus 19.6% percent of adults (Leatherman 1997). Managed care has many features that can promote excellent pediatric care and improved health status for children, e.g., it can focus on health promotion, a critical set of services for children to develop normally and achieve their full potential. On the other hand, as many have noted (Newachek et al. 1996; Newachek et al. 1994; Hughes et al. 1995; Fox et al. 1997a; Fox et al. 1997b), capitation and other cost controls have the potential to limit quality and promote under-service, and some of the strengths of managed care are less likely to apply to children. While theoretical speculation about the potential impact of managed care on children is abundant, efforts to test these theories empirically have not yielded any simple answers. Most of the research has focused on adults, and has contrasted fee-for-service with all forms of managed care as a whole. Five recent reviews of this literature conclude that the impact of managed care varies tremendously depending on the model of care, the population studied, and the methodology (Miller and Luft 1997; Hellinger 1998; UHC Peterson; Reid et al. 1996; Cangialese et al. 1997). The little we do know about the impact of managed care on adults is not easy to translate to children. The adult literature does, however, provide some hypotheses about where one might look in identifying issues for children. On the whole, the adult literature seems to show, though certainly not conclusively, that managed care is at least as good as fee-for-service for most of the people most of the time, but that sicker and poorer or otherwise vulnerable people may sometimes be the exception. And of course children *are* poorer, and have different epidemiologies and health needs. Three recent papers have reviewed what is known about the particular impact of managed care on children (Leatherman and McCarthy 1997; Szilagyi and Bergman 1998; Bergman and Homer 1998). One clear fact emerges: there is no simple answer to the question of whether managed care works for children. It all depends on what type of managed care is the focus of the study, what dimensions of care for children are examined, which population of children is included in the study, the study methods themselves, and when the research was conducted. (Excerpt from *Children and Managed Care: What Research Can, Can't and Should Tell Us about Impact,* MCRR Volume 56, by Simpson and Fraser.)

Recommendations for future research, data, measures, tools and training:

- Research on impact of specific features of managed care on children
- Pediatric HCUP database
- Research on why many children eligible for Medicaid and SCHIP do not become enrolled.
- Research on effectiveness and feasibility of interventions, including organizational change interventions, designed to improve adolescents' access to effective services.
- Need for State-level data to assess children's access.

A.6 Priority Populations Research Summaries

Children's Health Program

Introduction

The nation's 75 million children have always been a focus of research and activities supported by AHRQ and its predecessor agencies. They were, however, recognized as one of three priority populations in AHRQ's December 1998 Strategic Plan. Then, in late 1999, Congress and the President recognized children as a priority population as part of AHRQ's reauthorization (P.L. 106-129).

There are substantial reasons why children need special attention as AHRQ goes about fulfilling its legislative mission to "enhance the quality, appropriateness, and effectiveness of health services, and access to such services" (P.L. 106-129). Children differ from most adults in at least four respects: epidemiology of health and health care; rates of developmental change; dependency on adults; and demographics. Optimally, these characteristics of children should be taken into account as changes in health care are studied. Despite the dramatic changes occurring in the organization and financing of children's health services, the knowledge base for guiding these changes or assessing their impact is less well developed than that for adults.

1. Current State: Children's Health Care Needs and AHRQ Contributions

Children's Health Care Needs. Children's health presents a paradox. At the same time that children are among the most healthy and resilient of the nation's populations, they also experience a wide range of health needs that may bring them into contact with providers of personal health care services. Further, their health needs change as they grow from infants to adolescents.

As a group, children 19 and under experience the lowest mortality rates of all ages, yet they have the highest rates of acute (short-term) illnesses, most of which cause them to seek medical care. Although the percentages of children and adults with chronic illnesses may be similar [CHECK--From 5 to more than 30% of children are estimated to have a chronic illness], children's patterns of chronic illness are very different from those of adults. As more infants born seriously ill or at risk for illness survive because of improvements in technology and the organization of care, the number of chronically ill children who survive into adulthood will increase, presenting new challenges to the health care system. By virtue of their incomplete and varying development throughout most of childhood, children are particularly susceptible to selected social and physical environmental hazards and behavioral risk factors, some of which may be amenable to clinical intervention. Finally, clinical care presents opportunities to prevent the occurrence of disease (e.g., through timely immunization) and, beyond the prevention of specific disorders, to promote children's overall health and well-being.

Leading causes of mortality among children are low birthweight and prematurity, respiratory distress syndrome, unintentional injuries, homicide, cancer, heart disease, and suicide. Highly prevalent acute conditions among children under 18 include infective and parasitic diseases, respiratory conditions, digestive system conditions, acute ear infections, unspecified fever, and, for children 5-17, skin conditions and headache. The most severe and debilitating illnesses tend to be congenital and rare, that is, a relatively small number of children are born with a condition such as cerebral palsy, spina bifida, muscular dystrophy, Down syndrome, and sickle cell disease. Many more

Taken together, these conditions and opportunities for prevention result in high uses of outpatient personal health services. Hospitalizations, on the other hand, are relatively rare. Some services (e.g., dental care, mental health care) are widely acknowledged to be underutilized, however, and services provided in non-mainstream settings such as schools and some community clinics are undercounted.

Cross-cutting issues in health care for children include many that track cross-cutting issues for adults – racial and ethnic disparities, income-related disparities, differences in need by health state, vulnerability to poor access to care, effects of changes in organization and financing of care, and quality. Children with or at risk of chronic or serious acute disorders may be more vulnerable to problems with coordination of care across multiple settings, providers, and financing streams. Perhaps most importantly, unlike many adults, children must always be considered in the context of the family.

<u>AHRQ Contributions.</u> AHRQ's work on behalf of children's health spans the range of their health care needs. There is a greater body of AHRQ-supported research in high prevalence, high-cost physical conditions than in rarer conditions, mental disorders, developmental disorders and well-child care, or in research that provides knowledge about whether findings can be applied across conditions and children. Recently, AHRQ's portfolio has diversified to include more studies in asthma, mental disorders, injuries, and the organization of care. Research in settings beyond the physician's office and the hospital setting has also increased. AHRQ has made significant contributions to its strategic goal of improving health outcomes for children, including development of outcomes measures that are relevant to children and children's daily functioning, and rigorous research on whether specific health care interventions improve care, and at what cost. Research in outcomes and effectiveness has demonstrated that a number of commonly-used procedures in prenatal care have little evidence to support their effectiveness, and that less costly antibiotics (and sometimes no antibiotics) are in most cases as effective for treating acute ear infections as are more expensive antibiotics.

The Child Health and Illness Profile-Adolescent Edition evaluates children’s well-being across 6 domains, providing an excellent population-based measure of functioning that is able to distinguish between children who are generally well and those who are seriously ill. [have asked Anne Riley for impact data, i.e., # of users, who they are, any quotes of praise]. Another tool, the CHRIs, is a computer-based program using lively cartoon figures to ask children about their own health and the quality of their care,

AHRQ-supported research on asthma quality, while focused on adults, provided the basis for development of the NCQA asthma quality of care measure for individuals ages 4 and up in managed care plans.

The child version of CAHPS was adopted by NCQA, the first time a plan-oriented survey measure of the quality of care provided to children had ever been used nationally.

The Evidence-based Practice Center at Oregon Health Sciences University that produced the evidence report on TBI is conducting extensive followup to reduce the amount of inappropriate care being delivered, and to encourage research to determine what works for TBI in children. The NIH used a draft the ADHD treatment report at its consensus development conference on ADHD, and to develop a research agenda to advance the knowledge base on

In 1999, AHRQ published evidence reports on ADHD diagnosis and treatment and on rehabilitation for traumatic brain injury (TBI) in children and adolescents. Evidence reports are forthcoming on treatment of acute otitis media and on otitis media with effusion, acne, on child health aspects of diagnosis and treatment of acute bacterial rhinosinusitis, and on the clinical preventive services of developmental screening, screening for bacterial vaginosis in pregnancy, and newborn hearing screening.

AHRQ has identified problems in the *quality* of children’s health care, developed measurement tools in children’s health care, and embarked on major research initiatives designed to provide evidence on how to improve quality of care for children. To address the widely acknowledged paucity of quality measures for children, AHRQ is supporting development, testing, and implementation of the Consumer Assessment of Health Plans (CAHPS ®), the Pediatric Quality of Life measure, and other measures. Studies are under way on the impact of varying health plan practices and policies on quality of care for children; and on varying quality improvement interventions for asthma, newborn jaundice, and chlamydia screening in teenagers.

Up to date information on *cost, use, and access* is critical for policymakers. AHRQ’s two primary databases on he MEPS and HCUP, are invaluable resources for understanding how, why, and where children use health care. HCUP analyses recently revealed that two of the five most expensive diagnoses for hospitalization were child-related. A mainstay of AHRQ's research on children has been analyses of their insurance coverage, including analyses of disparities, and examinations of the effects of insurance coverage on access, use, and quality of health services.

2. Needs assessment.

Numerous stakeholders have advised AHRQ to expand or maintain its portfolio in child health services research and dissemination activities in numerous ways. Of particular note are recommendations to AHRQ that the Agency:

AHRQ found evidence of an enormous gap between Medicaid eligibility and enrollment in the program. In 1996, 4.7 million children who were eligible for Medicaid were not enrolled. This finding is cited widely in documents on outreach strategies to increase enrollment in Medicaid and the newer State Children's Health Insurance Program (SCHIP).

AHRQ, along with The David and Lucile Packard Foundation and the Health Resources and Services Administration, recently funded a set of studies addressing the impact of insurance expansions for low-income children on access and other outcomes. This set of studies was inspired by unanswered questions around SCHIP and six of the studies directly focus on SCHIP programs in Florida, Massachusetts, Kansas, Indiana, Oregon, and New York. Others address access and other issues related to Medicaid managed care and the impact of insurance expansions on safety net providers for children. Several of the studies are looking at the impact of alternative outreach strategies on enrollment and retention for low-income children. Findings from these studies are expected in 2002.

- Work to promote a broad change in attitude about the importance and value of quality of care for children, at the same time that it continues to fill the pipeline with evidence-based information to form the substance of quality improvement efforts.
- Put a greater focus on settings beyond mainstream medical care settings in which health care is provided to children, as well as working to enhance needed connections between public health and clinical services.
- Put a greater focus on special subpopulations of children, particularly racial and ethnic minorities in low-income families, adolescents, children with chronic illnesses and disabilities, and injured children.
- Broaden the disciplinary base to include more behavioral and social scientists and more nurse researchers.
- Form partnerships with community-based organizations and advocacy groups for children.
- Focus on the long-term effects of children's health care.

3. Agenda for Fiscal Year 2000 and beyond

In fiscal year 2000, AHRQ will address the directives of the recent Congressional reauthorization, suggestions made in Appropriations report, within its continued focus on encouraging and supporting research and activities that have the strongest potential to improve access, outcomes, and quality of health care for children, among other priority populations. Developmental activities will take place to advance the outcomes research and quality improvement agendas. In addition, TRIP II applicants are eligible for up to $1.2 million in funds set aside for high quality research on how to translate research into practice for children with asthma, and current knowledge about quality improvement will be discussed with members of the National Asthma Education and Prevention Program coordinating committee, including representatives from 38 health care professional associations. A ULP meeting will focus on quality improvement in pediatric asthma. Research using MEPS data will address critical issues for SCHIP and Medicaid program such as outreach, enrollment, retention, and the effects of variations in cost-sharing. In addition, enhancements are being made to MEPS and HCUP to enable more sophisticated research on quality in health care for children. A chartbook on hospital care for children that uses HCUP data will provide critical information for providers, policymakers and researchers.

In fiscal 2001, ongoing efforts to understand the effectiveness of strategies to translate research into practice for children will bear fruit, permitting stakeholders to turn productive strategies into practice and policy tools, and researchers to build further on these findings, addressing the questions that inevitably will remain unanswered. In addition, children will be included in efforts to improve information technology and reduce errors in health care.

Achieving AHRQ’s vision for improving children’s health care will require a long-term agenda informed by an overall framework and willing to build over time on incremental advances. In the future, children’s issues are likely to be included in more broad-scope research projects as well as addressed in specific studies, all undertaken by a increasingly diverse group of well-trained researchers with easy access to the most sophisticated research implements. With effort, understanding and inspiration, the timeliness and usefulness of their research findings and the tools they develop with AHRQ’s and others’ support should increase dramatically. AHRQ’s agenda for the future aims toward achieving these objectives.

Minority Health Program

AHRQ’s investments in minority health services research have resulted in numerous findings which are helping to shed light on how disease processes manifest in minority populations, illuminate the disparities experienced by racial and ethnic minority populations, and contribute to understanding the reasons for those disparities. As the knowledge base regarding healthcare delivery to minority populations expands, AHRQ increasingly is planning to shift its research direction to supporting projects which not only identify, but also pilot ways to eliminate disparities. Projects funded over the past several years have produced a range of findings consistent with AHRQ's three strategic goals: support improvements in health outcomes, strengthen quality measurement and improvement, and identify strategies to improve access, foster appropriate use, and reduce unnecessary expenditures. Some examples of the research findings follow. An appendix summarizes AHRQ's minority health services research grant awards in FY 1999.

Goal 1: Support Improvements in Health Outcomes

AHRQ supports research to improve treatment outcomes and reduce health care costs for many of the country's most prevalent and costly diseases and conditions. Much of this research for minority populations has focused on descriptive information regarding outcomes. For example, one previously funded research project in this area described differences in outcomes between black patients and white patients being treated for asthma or diabetes, noting that the differences remained after adjusting for socioeconomic status. The project also found that interventions which were successful for white patients were not always transferable to black patients. This type of information is important to designing strategies specific to minority populations in order to improve healthcare outcomes. Another descriptive study described a positive association between receipt of social support and improved outcomes in black patients with diabetes.

In addition to descriptive projects, other studies investigate means to improve outcomes. One example is a project which piloted an intervention to increase the appropriate use of corticosteroids in pregnant women prior to delivery of preterm infants. Minority women are at increased risk for premature deliveries due to a number of factors. This intervention, which has been shown to reduce infant mortality and disability, was successful in improving the quality of care and resulted in a substantial increase in the use of steroids.

Ongoing research continues work to improve healthcare outcomes in minority populations. Grants funded in FY 1999 address a range of issues:

- One project will attempt to determine whether race and gender influence the rate of performance of selected cardiac tests and procedures.
- A grant focusing on asthma care will study the cost-effectiveness of clinical practice guidelines designed to reduce asthma morbidity in children. If effective, implementation of these interventions could have significant impact on the lives of an increasing number of children with asthma, many of whom are minority.
- Another project will develop methods for risk adjustment for surgical procedures which are performed in otherwise healthy populations, using hysterectomy, an operation performed at very high rates in African-American women who also have higher complication rates compared with other women. One result of the study will be

comparisons of performance of different providers based on outcome.

Improvement in healthcare outcomes for minority populations is critical to assuring that the benefits of the Nation’s healthcare system are shared equally by all citizens.

Goal 2: Strengthen Quality Measurement and Improvement

Research grants in this area aid in developing valid and consistent quality measures and sound improvement strategies that work in everyday medical care. Here also, some of the research regarding minority populations has been descriptive and contributes to a general knowledge base regarding differences. One study, for example, found that black patients and female patients with chest pain were 60% as likely to be referred for cardiac catheterization as white male patients. Another project conducted at a major metropolitan hospital which had a predominantly minority patient population determined that medical residents on the staff did not follow several recommended guidelines for diabetes care. Other projects have enhanced the ability to measure quality in different minority populations. One example is a project which translated into Chinese, and validated the translation of a health status instrument (SF-36) used to assess various dimensions of health. For another project, the Consumer Assessment of Health Plans Study (CAHPS®) survey questionnaire was translated into Spanish in order to assist Hispanic Americans with their selection of health plans.

Ongoing research in this area will benefit minority populations by assuring the delivery of quality healthcare. Several grants funded in FY 1999 aim to improve quality measurement:

- One project is developing child health status instruments that comprehensively measure the health and illness profile of children aged 5 to 11. The instruments that result from this project will find widespread use in assessments of child health from parents and/or children's perspectives, and will enable examination of changes in child health over time, as well as evaluations of the effects of health care on children. By virtue of its geographic location, this project will target minority children.
- Quality of care for Asian-Americans is the aim of one study which will conduct separate focus groups for Chinese and Vietnamese patients to identify important patient issues, develop, and then validate patient questionnaires. The primary products of this study will be new ways to evaluate quality of care for Chinese and Vietnamese populations at risk because of language, cultural, and other barriers.
- The purpose of another project is to develop and evaluate a model for Collaborative Quality Improvement in loosely structured managed care organizations (MCOs). The specific condition selected for intervention (neonatal jaundice) is one of particular significance in minority racial/ethnic populations as incidence is especially high among certain minority groups.
- Another project will compare different support systems to help

primary care providers better manage urban African Americans with non-insulin dependent diabetes mellitus.

These and similar projects which enhance the ability to measure accurately the quality of care received by minority patients will help to improve healthcare quality and eliminate health disparities.

Goal 3: Identify Strategies To Improve Access, Foster Appropriate Use, and Reduce Unnecessary Expenditures

Research projects under this goal investigate a wide range of issues related to costs, utilization, insurance coverage, and access, in order to understand better the current trends in healthcare. Previously funded projects document differences in access, use, and cost of healthcare for minority populations compared to the general population. For example, one project investigating use of dental care found that American Indians with a usual source of dental care were twice as likely to report a dental visit as those who had no usual source of care. Findings from another project, a national study of HIV/AIDS care, indicated that there was no difference for Hispanic patients on most indicators used to determine adequacy of care. However, the same study found that black patients were started on a “cocktail” of medicines used to treat HIV/AIDS an average of 3 months later than white patients. Although black patients continued to lag white patients in several quality-of-care measures, the study noted that by early 1998, the disparity for black patients in initiating use of newly developed HIV medications had decreased from 24% to 8%.

One major source of research findings is AHRQ’s Medical Expenditure Panel Survey (MEPS), a nationally representative survey that collects detailed information on the health status, health services use and costs, and health insurance coverage of individuals and families in the United States, including nursing home residents. Analyses of data from MEPS resulted in publication in FY 1999 of findings that use of ambulatory care and dental care was lower among blacks and Hispanics that among other patients, and that Hispanics tend to spend less on health care compared to blacks and whites. Comparisons with earlier data revealed that decreases in health insurance coverage explained one-fifth of the declines in access to health care for Hispanic Americans (Age 18-24) between 1977 and 1996.

Since MEPS is an ongoing survey, additional findings can be expected to continue to shed light on access, use, and cost of healthcare by minority populations.

Additional grants funded in FY 1999 also address these issues:

C One study will evaluate how organizational and financial arrangements in Medicare managed care and fee-for-service settings affect the use and content of primary and referral care for patients with diabetes. This study should deepen the understanding of the role of financial and organizational arrangements on access to and quality of care provided to Medicare beneficiaries with diabetes.

- Another project is aimed at creating awareness among health professionals and institutions of the differences in the written communication needs of language minority populations. The goal of this research is to compare translated and non-translated text (developed originally in Spanish) brochures currently distributed to Spanish-speaking adults in southern Arizona and northern Mexico. The project should also lead to the development of guidelines for workers/organizations in preparing effective written health-related materials in Spanish.
- One grant will investigate cultural competence in hospital systems. The project will facilitate understanding how the Massachusetts acute care hospital industry is undertaking structural and process improvements to ensure quality, access, and effectiveness of health care for racial/ethnic minority consumer groups.
- An additional study will investigate the effectiveness of patient interventions designed to increase appointment scheduling for breast and cervical cancer screening in low income women aged 18-64 and to test the interaction of the interventions with ethnicity-race.

In FY 1999, AHRQ expanded its support for minority health services research by announcing funding set-asides for projects addressing conditions identified in the DHHS Initiative to Eliminate Racial and Ethnic Health Disparities. The series of requests for applications (RFAs) responded to the report, “Quality First: Better Health Care for All Americans,” by The President's Commission on Consumer Protection and Quality in the Health Care Industry, which called for a significant investment in the further development of research, tools, and information. The three RFAs were: 1) Measures of Quality of Care for Vulnerable Populations; 2) Translating Research into Practice; and 3) Assessment of Quality Improvement Strategies in Health Care. In addition to their common context and theme, these three initiatives were also designed to help build capacity in the field of health services research.

The RFA, “Measures of Quality of Care for Vulnerable Populations,” sought to develop and test new quality measures for use in the purchase or improvement of health care services for populations identified as vulnerable in the Presidential Commission report. The set-aside funds were used to support four grants: One project will develop a quality of care measure for hypertension in a population of Hmong refugees in Fresno, California, and conduct a pilot test of the instrument. A second project will use census data to monitor care in vulnerable populations and develop a series of practical, clinically relevant indicators that are sensitive to differences in quality of care provided to socioeconomically vulnerable populations, evaluate the performance of census-based data, and determine the extent to which socioeconomic measures account for disparities in the quality of care provided to African-American and Hispanic patients. In another project, “Measuring the Quality of Care for High Risk Infants,” investigators will develop new methods to measure the quality of care for very low birth weight infants, apply these methods to the estimation of past quality of care and the prediction of future quality of care, and identify and apply a minimum set of quality measures that summarizes quality differences. The fourth project will use Medicaid data to develop claims-based quality measures for ambulatory diabetes care, identify appropriate indicators of quality of care, analyze variation in receipt of specified indicator care components, and develop a quality-monitoring system.

The RFA, “Translating Research into Practice,” intended to generate new knowledge about approaches, both innovative and established, which are effective and cost-effective in promoting the use of rigorously derived evidence in clinical settings and lead to improved health care practice and sustained practitioner behavior change. Three grants were funded using the set-aside funds: One grant to improve diabetes care will focus on vulnerable patients with diabetes who receive care at rural and urban community health centers (CHCs). CHCs are critical sites of primary care for 10 million Americans, many of whom are minority, who reside in medically underserved areas. A project to improve home health care nurses’ performance and promote adherence to evidence-based guidelines will focus on two tracer conditions where women and minority patients are overrepresented: congestive heart failure and cancer pain. The third grant proposes to standardize the current variability in surfactant administration practices for the prevention and treatment of neonatal respiratory distress syndrome to reduce both mortality and morbidity for pre-term infants.

For the RFA “Assessment of Quality Improvement Strategies in Health Care,” AHRQ solicited grants for projects to rigorously evaluate strategies for improving health care quality which are currently in widespread use by organized quality improvement systems (projects that would expand the conceptual and methodological basis for improving clinical quality and analyze the relative utility and costs of various approaches to quality improvement). The project funded through set-aside funds of this RFA will create a partnership with Harlem’s 6 major health providers to evaluate the effectiveness of nurse management compared to “usual care” for congestive heart failure patients in East and Cental Harlem.

In addition to directing funding to support minority health services research, AHRQ convened an expert workshop in May 1999, entitled “Future Directions for Health Services Research Regarding Minority Populations.” Clinicians, health services researchers, and community leaders convened to discuss the Agency’s future research agenda. In the course of the day, the meeting participants met in large and small groups and identified appropriate priorities and questions for health services research, strategies for involving communities of color, and building the capacity in minority health services research. Some suggestions from the meeting included increasing research devoted to evaluating the importance of cultural competence to health care disparities; empowering communities to become involved in health services research; requiring strong linkages to minority communities as a condition for receipt of research project funding regarding minority health services research; building capacity for minority institutions and minority investigators to become more involved in health services research; and incorporating research on minority health services and needs into other research efforts.

For FY 2000, AHRQ has expanded further its commitment to minority health services research through two new RFAs. The first RFA, "Understanding and Eliminating Minority Health Disparities," will help determine what we need to know to improve care further by supporting the development of centers of excellence doing research on minority populations. The centers will assure that we gain new knowledge about the factors that affect the quality, outcomes, cost, and access to care for minority populations. This RFA responds to the DHHS Initiative to Eliminate Racial and Ethnic Health Disparities. For the second RFA, Translating Research into Practice, half of the funding will be reserved to support applications which translate research findings to improve the quality of care for minority populations. These projects will help close the gap between what we know and what we do, by exploring reasons for the disparities and ways to eliminate them. A priority will be determining to what extent general strategies need to be modified to improve care for minority populations.

These and other AHRQ minority health services research activities will go beyond mere support of increases in existing knowledge to include the design of systematic interventions to determine which approaches are most effective for delivering healthcare to minority populations. AHRQ research funded in support of the DHHS Initiative to Eliminate Racial and Ethnic Health Disparities will provide a firm basis for assuring equitable healthcare for all citizens.

Women's Health Program

Introduction

Increased interest in women's health over the past decade was fueled by a recognition that women had been historically under-represented in biomedical research, which resulted in policies mandating the inclusion of women and minorities in federally-funded studies. At the same time, a number of developments in the health care delivery system converged to establish a new focus on the use of health services associated with patient gender. Women began to press their legislators for an enhanced focus on women's health concerns in provision of selected services and for biomedical research, the health system developed the capacity to examine patterns of health service use on a large scale, and there was a professional evolution in health care that recognized the importance of patients' preferences in clinical decision making. The central role of women in making family health care decisions was recognized.

A critical challenge for AHRQ in FY 1999 was to obtain input from a broad community of researchers, clinicians, policy makers, women and advocates to identify priorities for women's health services research. Thus, in addition to funding studies relevant to problems unique to women such as breast cancer, and studies that examine differences in patterns of care associated with gender, the Agency undertook a major initiative to work with stakeholders to develop a user-driven research agenda to inform future research directions.

During the year, the Agency also received a number of requests from advocates in the private sector working on domestic violence, and from the DHHS Steering Committee on Violence Against Women, for assistance in developing a research-based performance standard for health care providers. In response to these specific requests, the Agency also initiated a series of consultations and review of the literature related to health care interventions in use around the country.

> There are many opportunities. The challenge is not what AHCPR could do, but rather how to integrate it together coherently in a way that explains to Congress and the public why the Agency has taken on this particular agenda.
>
> Expert Panelist, “Defining a Women’s Health Services Research

Needs Assessment and Agenda Development

The major products for the women’s crosscut program in FY 1999 include a user-driven research agenda oriented to AHRQ’s strategic goals, and a targeted research initiative on the health care system’s response to domestic violence. In addition to consultation with a range of individuals and groups working on women’s health issues the agency convened two expert meetings to assist in testing issues and priorities identified.

<u>What is the impact of health system change and health policy change on women?</u>

> The urgency and magnitude of the problem of family violence have caused policy makers, service providers, and advocates to take action in the absence of scientific knowledge that could inform policy and practice.
>
> *Violence in Families: Assessing Prevention and Treatment Programs*, IOM, National Academy Press, 1998

A major issue area identified is the need for assessment of the quality of care in federal health plans that serve large populations of women. Little is known about how well low-income women are being served by Medicaid from their perspective, whether welfare reforms are impacting on the health of low income families, and what the impact on women and caregivers is of revised Medicare policies on home health care, nursing home, and other areas of change.

Many in the stakeholder community flag the need for a substantial expansion of sex-specific analysis in research and AHRQ leadership in encouraging adherence to existing mandates requiring the inclusion of women. Although AHRQ and other federal health agencies require studies to include women, women are still not consistently included in sufficient numbers to make possible analysis of male-female differences nor comparisons between groups of women by age, race, or other characteristics. Even when adequate numbers of women are included, sex-specific analyses are not routinely reported.

There is a need to move from identification of variations in practice to the study of how to improve outcomes and effectiveness

Research on improving active life expectancy among older women is a high priority for almost all stakeholder groups. As the number of older women affected by multiple chronic conditions continues to accelerate, there is a need to press forward with greater urgency and additional resources to identify improved medical management models that will maximize patient functioning and quality of life while minimizing costs. Bringing about improvements will require studies that link an understanding of financial and organizational incentives with knowledge of clinical effectiveness.

There are a only few studies identifying major male-female differences in the effect of therapeutic drugs and the research findings have received little attention in the practitioner community. Studies are need on the extent to which women experience adverse events from certain drugs or classes of drugs, and the extent to which sex-based differences are a factor. Studies which focus on improved uptake of findings on gender differences in effects are needed. A related concern is the lack of rigorous assessments of new technologies in imaging, ultrasound, and other areas of technical innovation and progress.

Strategies to address disparities in outcomes associated with gender and race/ethnicity continue to need attention and resources. Studies of how to imporve cultural competence are key to improving access and outcomes among ethnic groups of women, including immigrants.

There is a need to examine the impact of compliance or noncompliance with the Americans with Disability Act and its effect on access. Many disabled women do not get care because they can’t get in the front door of the doctor’s office. Pelvic exams are bypassed because it is too much trouble to get the women on the exam table. And, many disable women have their neurologist or orthopedist serve as their primary care doctor because primary care doctors are neither trained nor comfortable in serving their needs.

Because of changes in access to services and types of providers in integrated health care systems, new studies of the mental health services used by women are needed.   Data on women's use of mental health services, what mental health services are used by women from different cultural groups use or don't use and what happens to them in the mental health system are all needed. Cost, Use and Access Issues Related to Women's Health. Women have a strong stake in additional study of gender differences in types of care provided. Studies suggest that while women see their primary doctor more often, they have lower use of specialists than do men and are less likely to receive hospital based procedures such as coronary artery bypass graft surgery, heart transplantation, automatic cardioverter-defibrillator implants, angioplasty, pacemakers, and hip replacement surgery. Whether this represents underuse, technical barriers that need to be addressed, or appropriate care for women needs to be established.

> Women interact with the health care system in unique ways and use more health care services than men, as well as requiring different types of services.   Women comprise 52 percent of the population over age 18, but make up about 60 percent of visits to offices and outpatient departments in hospitals.

The care received by women tends to be more fragmented than care received by men as a result from the distinctive scope of practice of physician speciality groups. Almost one third of women in the United States had both a family physician or internists and an obstetrician/gynecologist. A recent Commonwealth Fund study found that women who see both types of providers received more preventive services than women with only one generalist physician, but also incurred 25 percent more annual visits. However, women who did not see an obstetrician/gynecologist were less likely to receive key preventive services. To date, little is known about the impact of such changes in the structure of health plan benefits as introduction of primary care gatekeepers, cost-sharing, referral requirements, and the like, on the type, quantity, and quality of care women receive.

Ongoing study of the use of service, insurance status, and study of the impact on the health of women who are uninsured–including more than one-third of all Hispanic women–is critical.

Future Directions

As a result of work in the area of domestic violence and review of the literature, AHRQ is preparing to issue a call for longitudinal studies of the effectiveness of health care interventions for victims of domestic violence. The dialogue with the advocacy community around the need for science to inform practice if health care systems are to develop more aggressive treatment programs has resulted development of a first national conference on the domestic violence and health care, to be held in October 2000. The Agency is also working on development of a program announcement targeted specifically to women’s health in FY 2000 to encourage new research targeted to identified priorities.

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