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Advancing Research, Policy and Practice

Strengthening the Field of Health Services Research: A Needs Assessment of Key Producers and Users

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Introduction

Health services research, when appropriately funded, coordinated, and disseminated, plays a critical role in addressing problems related to the nation’s health care system. It “connects the dots” between cutting-edge medical and health discoveries and their practical application. It generates knowledge about the most pressing issues in health and health care today, including prevention, patient safety and quality, access and coverage, disparities and health care, and rising health care costs.¹

Researchers, policymakers, and other consumers of health services research are concerned about the future of the health services research field, especially the erosion of its basic infrastructure. If left unchecked, declining investments in graduate education, methods development, data improvements, and a broad array of investigator-initiated research topics could threaten the field’s future and capacity to address public and private sector needs.

From fall of 2005 to spring of 2006, AcademyHealth interviewed leaders in the fields of health services research and health policy and practice as part of an environmental scan to inventory the perceived needs and expectations of both producers and consumers of health services research.² As the professional society for those who conduct and apply this research, AcademyHealth has a clear interest in the strategic position of the field, especially as it confronts significant challenges facing the American health care system.

This report:

- ◆ provides an overview of the methodology for the environmental scan;
- ◆ summarizes the findings of the environmental scan;
- ◆ draws conclusions regarding the infrastructure needs and research priorities of the field; and
- ◆ suggests immediate and long-term actions that must be taken to assure this field can continue to impact health care delivery.

Methodology

AcademyHealth interviewed 35 producers and consumers of health services research as part of an environmental scan to glean insights on major opportunities and challenges facing the field (see Table 1). For the “producer” side, we sought input from 21 leaders of university and non-university based health services research centers that conduct health services research studies. We also solicited the perspectives of 14 consumers or “users” of health services research—federal policy professionals, state health officials, health care purchasers, providers, and consumer advocates.

AcademyHealth prepared separate interview protocols for “producers” and “users” of health services research. Interviews with leaders of university and non-university based health services research centers solicited these research producers’ perspectives on two central questions:

- ◆ What are the infrastructure needs of the field—including human resources (recruitment and training), methodological challenges, and data needs?
- ◆ What are (or what should be) the research priorities for the field, including research funding, topics, translation, and timeliness?

For users of health services research, AcademyHealth solicited their views on research priorities, when and where they turn for the latest research, their needs for timely and relevant findings, and the importance of translating research into policy and practice. While we acknowledge that the results from these targeted interviews are anecdotal in nature and should be interpreted with that qualification in mind, we believe they provide important insights that will need to be addressed to assure that this field can continue to make important contributions to improving America’s health and health care.

Table 1: Environmental Scan Interviewees

| “Producers” of Health Services Research (n = 21) | |
|---|---|
| University-Based Research Centers | Morehouse School of Medicine (two interviewees) University of Pittsburgh UCLA Harvard University Johns Hopkins University University of Minnesota University of Michigan University of Arizona Case Western Reserve University University of Kentucky Virginia Commonwealth |
| Non-University Based Research Centers | RAND Health The Lewin Group Mathematica Policy Research, Inc. Merck & Co. |
| State Research Organizations, Health Plans, & Health Systems | Kansas Health Institute Baylor Health Care System Henry Ford Health Care System Kaiser Permanente Mayo Clinic |
| “Users” of Health Services Research (n = 14) | |
| Health Care Providers | American Academy of Family Physicians American Hospital Association |
| Consumer Advocates | National Health Council International Association of Machinists and Aerospace Workers AARP (two interviewees) National Mental Health Association |
| Purchasers | General Motors Eli Lilly |
| Federal Policy Analysts | Centers for Medicare and Medicaid Services Office of the Assistant Secretary for Planning and Evaluation Senate Finance Committee |
| State Health Officials | Mississippi Department of Health Minnesota Department of Health |

Environmental Scan: Highlights

Broad commonalities emerged in discussions with a range of leaders of university and non-university based research centers. In general, producers of health services research emphasized the need to:

- ◆ **Reexamine research priorities.** An examination and reorganization of research priorities is needed to advance the field, particularly to encourage funding for investigator initiated research and to nurture and fund researchers so they can focus on a broader array of research topics.
- ◆ **Invest in the next generation of researchers.** The health services research field needs to increase its investment in the next generation of researchers by boosting their numbers and their diversity and by improving their writing and translation skills to better meet decision makers’ future needs.
- ◆ **Improve methods.** Increased funding is needed to improve training in existing research methodologies and to foster the development of more complex, applied methodologies.
- ◆ **Improve large data sets.** Federal data sets need significant improvement and redesign; a renewed effort at improving state and regional data sets will be critical to meeting the needs of local policy efforts.

Many of these views expressed by leaders of university and non-university based research centers were echoed in the comments of users of health services research. Users of health services research stressed the need to:

- ◆ **Reexamine the academic incentive system.** The research community’s current incentive system—based on publications and tenure—must be realigned to encourage researchers to conduct policy-relevant work that informs decision-making.

- ◆ **Improve research timeliness.** New efficiencies should be built into the research management process that will improve the timeliness of research.
- ◆ **Encourage communication with decision makers.** Researchers should be given training and support for working more closely with decision makers to ensure that research meets their needs.
- ◆ **Support research translation.** Researchers also need to become more adept at translating their research findings into practical applications for policy settings and anticipating the future needs of decision makers.

When viewed as a whole, interviews with producers and consumers of health services research suggest several broad areas of findings. In the following sections, we group these findings into two categories: infrastructure needs and research priorities. In terms of infrastructure needs, the interviews highlighted a number of human resources challenges, ranging from recruitment—especially the recruitment of underrepresented individuals—to the lack of critical skills among the field’s next generation of leaders, and the need for improved translation skills and better methods training. The difficulties of navigating federal data sets and the need to develop better regional data also emerged as key concerns.

In terms of research priorities, interviews uncovered numerous research gaps and funding needs, including health care financing, disparities, and genetics. Finally, the environmental scan suggests an overall need for the field to address not only the timeliness but also the relevance of research, by focusing on translation and improved communication between the worlds of research and policy.

Environmental Scan: Infrastructure Needs

Human Resources: Size, Composition, and Distribution of Workforce

◆ **Geography and funding present recruitment challenges.** Leaders of non-university based research centers cited geography as a unique challenge in recruiting qualified researchers to their centers. “Resources in health services research—both in terms of quality and quantity of researchers and funding, are concentrated on the East and West coasts.” Leaders of university-based research centers cited a lack of funding for new researchers as the greatest challenge in attracting new students to the field of health services research. “Limited funding is available through the [Agency for Healthcare Research & Quality’s (AHRQ)] 20 or 22 grants, and the Health Resources and Services Administration (HRSA) has some money available, but these federal pots are diminishing.”

“Lack of sufficient funding support for graduate students is a continuous problem and the biggest challenge in graduate education.”

◆ **Both funding and support are critical to recruiting underrepresented individuals in university-based settings.** The experiences of university-based research programs vary with regard to recruitment of minority graduate students. The University of Michigan offers an example of a program that has been successful in recruiting underrepresented individuals into its health services research program. This success was attributed to funding from the Kaiser Family Foundation to bring minority bachelor’s students to the School of Public Health for a summer of coursework to gauge their interest in the master’s program.

“[We] cannot lose sight of the need to diversify the profession. [We] need to come up with ways to give minority researchers more visibility.”

◆ **Recruitment of underrepresented individuals in non-university based settings poses challenges.** Leaders of non-university based research centers expressed a high degree of frustration in trying to recruit minority researchers, noting that minorities are typically underrepresented in Ph.D. programs in general. Geography appears to be a contributing factor. Kaiser Permanente’s research center, located in Portland, Ore., has had almost no luck in recruiting minority researchers. In contrast, the Henry Ford Health Care System, located in Detroit, has experienced some success in recruiting African American researchers.

Human Resources: Core Competencies of the Workforce

◆ **Students lack critical skills.** Producers of research reported in interviews that students entering Ph.D. programs and moving into university and non-university based positions lack the critical skills necessary to succeed in the field of health services research. The skills sets cited as the most deficient in the next generation of health services research—namely communications and leadership—will be the same skills most needed in the next five years.

“There is a deterioration of writing skills. It is hard to find researchers with the ability to distill, interpret, and translate complex information for a less-informed audience.”

◆ **University-based settings do not reward important translation skills.** Producers of health services research attribute this disconnect to misaligned incentive systems in the academic and nonacademic settings. University-based researchers noted that since academic settings do not reward translation, “there is not a lot of reason to teach it.” Interviewees expressed concern about this trend, as more and more decision makers are turning to dissemination tools other than academic journals.

◆ **Greater investment in tomorrow’s leaders needed.** Researchers expressed concern that today’s students and freshly minted researchers lack the leadership, management, and teamwork skills necessary to independently lead studies or research centers. One researcher commented that “doctoral level researchers coming out of academic programs lack the leadership and management skills often needed to run large research projects.”³

◆ **Recent survey ranks translation skills and writing among top areas where graduates need further training.** When asked to list the areas in which recent health services research graduates need further training, researchers listed “translating research for policymakers and practitioners” (52 percent), “grantwriting” (42 percent), and “research management” (37 percent) as the top three priorities in a recent survey conducted by AcademyHealth.

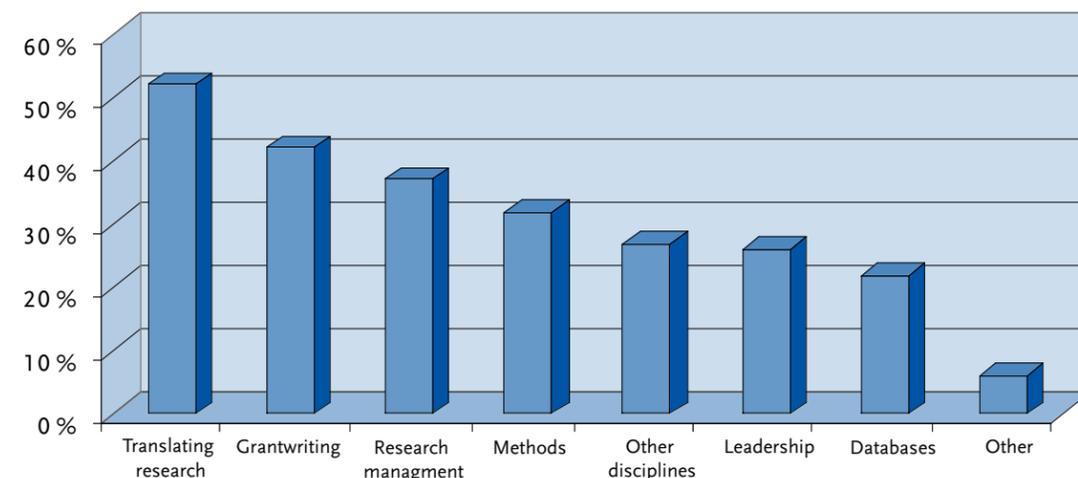
Methods Education and Development

◆ **The greatest challenge to university-based producers of health services research is staying abreast of new methodological approaches.** With a proliferation of new and

increasingly sophisticated methodological approaches, researchers need continuing professional education to stay current. Said one researcher, “it seems like every time you turn around, you’re behind the eight ball.” Without continuing education, some faculty report that they are not always able to teach the newest methods, “even though they’re relevant to answering the research questions of today.”

◆ **In addition to more funding for training, greater investments in methods development needed.** Researchers from non-university based research centers stressed that this is the area where they experience the greatest challenge, because the federal government and foundations are reluctant to invest in untested methods. “Funders want to fund work that applies methods, not develops methods.” In the 2006 AcademyHealth member survey, 32 percent of respondents indicated that “development and application of research methods” ranked among the top three areas where graduates need further training.

Figure 1: Areas in which New Health Services Researchers Need Further Training



Source: AcademyHealth Member Survey, 2006.

- ◆ **More sophisticated methods pose ‘black box’ conundrum.** Several researchers cited an increasing tension between advancing more complex methods and “communicating clearly, concisely, and accurately the ways in which those methods work.” Developing new health policies such as performance-based reimbursement requires complex, scientific methods. Communicating in a transparent way how the models work to decision makers and community stakeholders presents “unique, if not insurmountable challenges.”

“The more complex the methods, the more the findings become a black box. Such findings and complex methods are well received by journals, but they’re not well received by policymakers.”

Data Needs and Deficits

- ◆ **Funding needed to restructure federal data sets and develop state & regional data sets.** Researchers stressed the need to improve the structural integrity and availability of public administrative data sets so that we can assess in real-time the effects of treatment options and delivery system changes. Researchers also stressed the need for better regional data. “It’s hard to convince local policymakers that they need to follow recommendations based on findings from national data.”
- ◆ **Researchers express concern about portraying electronic medical records as a “silver bullet.”** Both university and non-university based researchers expressed concern about electronic medical records as a panacea for the research communities’ data woes, noting that electronic data are sometimes less reliable and more difficult to use. Researchers also emphasized the need for better linkages between datasets at all levels. “Among current datasets, there’s a disconnected sea of information.”

“Data in electronic form can be just as lacking in cohesion and comprehensiveness as the patient data available in paper form.”

- ◆ **HIPAA and Internal Review Boards (IRB) hinder the research process.** Nearly all of the research producers cited HIPAA restrictions and the IRB process as constraining their ability to access data and conduct research. They described HIPAA and IRB requirements as “pervasive” and “huge burdens that are crushing research,” especially when conducting studies across multiple systems or entities.

Environmental Scan: Research Priorities

Research Funding

In a recent AcademyHealth survey, 34 percent of respondents listed “lack of funding for investigator initiated research” as one of their most pressing challenges.

- ◆ **Most researchers believe that targeted, categorical funding creates duplication and limits creativity.** Most of the researchers interviewed thought that more than 50 percent of research funding should be dedicated to investigator initiated research. They explained that exploratory research and development is necessary to advance any scientific field, so mechanisms should be in place to nurture creativity and exploration to create a broad knowledge base for health services research. “I understand that people have priorities, but targeted research often results in overkill, with the same findings generated over and over again. One area ends up robbing other areas of needed resources.” However, one researcher from a non-university based center argued that investigator initiated research should represent less than half of the research budget because it does not tend to answer the questions that need to be answered.

Research Gaps and Resources

- ◆ **General agreement that research gaps must be addressed, including health care financing, disparities, and genetics.** Both the university and non-university based researchers we interviewed agreed that more research is needed in the area of health care financing, generally. Other gaps identified by research producers and users include disparities, genetics, and the evaluation of federal programs. Some researchers pointed to a need to shift the research focus from defining problems to identifying solutions. Academic researchers also thought there should be a greater focus on health policy analysis, noting that “think tanks are way out ahead on these topics and we’re not even close in academia.”

“There are a number of issues we’ve identified and still haven’t solved: disparities, quality, and the uninsured.”

- ◆ **Research translation and knowledge transfer identified as gaps by non-university based researchers.** Many of the non-university based researchers thought that research translation and knowledge transfer represented a gap in the knowledge base; particularly research on how patients and providers use health services research in their decision-making.

Research Relevance and Translation

- ◆ **Users and producers agree that health services researchers must anticipate and respond to the “what if?” questions posed by policymakers.** Researchers must move beyond the confines of their study limitations and research questions, anticipate the “what if?” question posed by those they hope to influence and respond based on their knowledge and expertise. Researchers have a tendency to avoid providing their best professional judgment or being willing to be identified as an expert, instead referencing “everything with a caveat or being too nervous to make [recommendations] or decisions.” One policy professional expressed frustration about researchers’ apparent lack of motivation to place a stake in the policy realm:

“Researchers have to decide: do they want to influence policy?” The results of our interviews are supported by a survey of state government policymakers that found that 89 percent of respondents want to know what researchers view as the policy implications of their research.⁴

“The most effective academics are those who can answer a senator when he (she) asks, ‘what would you do given this information?’”

- ◆ **Both users and producers of research support improved communication between the worlds of research and policy.** Researchers must identify and engage the research’s key audience and stakeholders before delving into their work. Equally important, researchers must take time to better understand the world in which decision makers operate. Said one state health official, “researchers must better maneuver and communicate in a political environment...If they want to influence policy, they need to understand the political process and [climate].” Several users of research commented on the lack of trust between the research and policy communities, fueled in part, they said, by researchers’ unwillingness to respond to users’ needs.

Research Timeliness

- ◆ **Health services research findings rarely meet “real-time” needs of decision makers.** Producers and users of health services research cited varying reasons why research findings are not disseminated more quickly. Researchers cited time lags in securing funding. “If it takes 18 months to get funding for a hot topic, is it still a hot topic by the time you get the funding?” Researchers also pointed to data restrictions, an anti-science climate in the United States, and peer-review processes as barriers to timeliness. Users, on the other hand, focused on researchers’ reluctance to publish preliminary findings as the primary reasons why research is not disseminated more quickly. One purchaser commented “researchers need certainty before they will take their work to the bank.”

- ◆ **Decision makers need preliminary research findings.** Researchers agreed that they could do a better job of making preliminary research results available and communicating those results to decision makers. And users of research suggested that researchers could do a better job of anticipating decision makers' needs to take advantage of 'policy windows.' "Researchers need to look out onto the horizon and identify emerging needs," suggested one state health official.

"Research, when it's done right, takes time. But it's sometimes better to just jump in and help policymakers than to take too much time getting it perfect..."

Future Research Priorities

- ◆ **Looking ahead three to five years, producers and users foresee a range of research priorities.** Producers of research listed a range of priority topics to meet current and future needs, including health care quality and patient safety, health care disparities, gender differences in reactions to drugs and treatments, informatics, interoperability of systems, how patients and providers and providers interpret research findings, and evaluation of federal programs. Users of health services research described a number of interests, including consumer-driven health care, evidence-based benefit design, financial incentives for physicians, controlling health care spending, and comparative effectiveness research. Providers and consumer advocates listed patient access to care as a key research priority.
- ◆ **User groups identified disparities research as an area that will continue to be a priority in the future.** "Disparities have been around forever," commented one researcher. We need to get at their root causes, she said. Researchers called for more funding and a call for research to examine the underlying

causes of disparities. Researchers described a range of needs when it comes to disparities research including racial and gender differences in health care, and pointed to the limits of existing disparities research. One researcher commented that disparities research always looks at the differences between whites and blacks, noting that there are greater differences within racial groups.

- ◆ **Future research priorities should focus on solutions.** Many producers and users of health services research felt that future priorities need to focus on taking what we already know and finding solutions, addressing problems, and facilitating change. One researcher offered the examples of the uninsured and health care disparities as areas where trends have been well documented, but little has been done to contribute innovative solutions.

"We need a multi-disciplinary approach to eliminating health care disparities...the old silos won't work."

Blueprint for Action

The health services research field needs to address pressing infrastructure needs and to reshape its future agenda. Pressing interests and needs from policymakers across a wide range of topics—from controlling health care cost increases, to health care disparities, the effectiveness of quality improvement guidelines, access to care, and improving financial incentives for physicians—await the attention and resources of the field. In general, findings from the needs assessment suggest that attention is needed across two broad areas: a) prioritizing research, strengthening

collaboration, and communicating the value of the field and its research findings, and b) building investments in recruitment, training, methods, and data. Finally, AcademyHealth recommends the formation of a Council of Sponsors to spearhead the development of a strategic plan for the field of health services research and to provide an ongoing forum to assess how the field is addressing America's pressing health issues.

What's Needed: Prioritizing Research, Strengthening Collaboration, and Communicating Value of Health Services Research

The field must examine and prioritize research to encourage investigator-initiated research, to stimulate cross-agency collaboration, and to communicate the value of health services research.

- ◆ **Knowledge base: improve funding opportunities for investigator-initiated research as well as broad research efforts.** While opportunities for selected research funding via targeted solicitations remain stable, far fewer options exist for investigator-initiated research. In addition, many producers and users of health services research believe it is impossible to anticipate all future challenges and cite a critical need for mechanisms that nurture creativity and exploration to create a broader knowledge base so the field can contribute the evidence that will be needed to respond to the country's pressing health needs.

Recommended Action

- To both stimulate scientific innovation and address the needs and priorities of research sponsors, offer targeted solicitations in a broader array of research topics than currently available. In addition to health care quality, the categories most often cited by those we interviewed as needing more investment include health care disparities, genetics, coverage alternatives, and health financing strategies. Develop mechanisms that allow researchers to specify the types of research and translation activities needed for these areas of investigation.

- ◆ **Interdisciplinary research: strengthen cross-agency collaboration.** Health services research is interdisciplinary in nature and requires collaboration across multiple fields, in particular those conducting clinically-oriented investigations. Cross-agency solicitations within the federal government should include not only the institutes at the National Institutes of Health (NIH), but AHRQ as well.

Recommended Action

- Build stronger cross-agency collaboration so that health services researchers are included on interdisciplinary teams and can contribute their expertise to multiple areas of research.
- Encourage greater coordination between NIH and AHRQ so that these entities might recognize and build upon their complementary skills and interests.

- ◆ **Communication: increase awareness of field of health services research and the value of its research findings.** Producers of health services research emphasized the need to communicate and facilitate better understanding of the value of health services research—what it is and why it's important. As one researcher said, "to sustain the field, you have to remind people that health services research is the foundation for all of the other sexy things people care about," such as health care quality and patient safety.

Recommended Action

- Develop a compelling business case for the field of health services research that will provide the budget justification for continued (and increased) investment in the field. The business case would go beyond describing what health services research is, providing a vision that will outline how health services research will transform the health care system in the 21st Century and excite investors (i.e., policymakers and the public).

What's Needed: Critical Investments in Recruitment, Training, and Data

Greater investment is needed in the following areas in order to strengthen the field's capacity to meet future health policy and decision making needs through research.

- ◆ **Human resources: improve recruitment and expand early-career funding.** The health services field needs to improve its ability to: a) recruit a demographically and disciplinarily diverse workforce; and b) retain qualified health services researchers as they progress in their careers. As university-based researchers begin their academic careers, they require evidence of independent scholarship, including K-Awards, ROIS and other grants. Failure to adequately fund such grants may result in losing early career researchers to areas with more support.

Recommended Action

- Support funding for and development of effective approaches to recruiting underrepresented individuals in both university and non-university based setting.
- Expand the funding infrastructure for graduate students and new researchers to support them throughout their early career development.

- ◆ **Human resources: improve core competencies of new researchers.** Students entering Ph.D. programs and moving into both university and non-university positions will need support for building communication skills critically needed by the next generation of leaders in the field. Today's students and freshly minted researchers also need programs that develop their leadership, management, and teamwork skills—all skills that will be paramount as policymakers demand greater applicability and translation of research findings.

Recommended Action

- Encourage the development and inclusion of communication, translation, and writing for decision makers in curriculums at graduate health services research programs. Leadership and communication skills building workshops also need to be made available on a continuing education basis.
- Push research funders to offer incentives for researchers to improve translation of research findings. Funders may want to encourage researchers to use persons skilled in knowledge transfer and research translation to assist them in developing key messages from their research and in disseminating their findings.

- ◆ **Research methods: improve training and invest in complex research methods.** Increased investment in applied research methods is critical to strengthening the field's basic infrastructure and capacity to conduct high-quality studies. Along with the development of new research methods, more resources are needed for training and guidance on the appropriate use of existing methods.

Recommended Action

- Devote more resources to training in the appropriate use of existing methods, including education in the areas of applied informatics and large database management.
- Find ways to increase investment in more complex research methods.

- ◆ **Data and data resources: improve functionality of federal data sets and build better state and regional data sets.** Improvements in the availability and quality of data are essential for evaluating all

aspects of the health system. Specifically, stakeholders argued for more funding to restructure and improve linkages among various federal health datasets and other national data sources, and to develop new datasets that address priority areas such as comparative effectiveness studies. In addition, several stakeholders emphasized the need for better state and regional data.

Recommended Action

- Push for funding that will improve the functionality of specific national health datasets and develop new datasets to meet future research demands.
- Encourage federal agencies and foundations to fund the development and improvement of state and regional data sets.
- Sponsor the development of a Medicaid "database best practices guide" for obtaining and using Medicaid data. Ideally, such a guide would offer examples of how states have made their data available to researchers while preserving confidentiality and privacy.
- Provide dedicated funding to support the development and use of reliable linkages among federal databases.

What's Needed: Council of Sponsors to Develop Strategic Plan for Field

As a final recommendation, AcademyHealth supports the establishment of a Council of Sponsors of Health Services Research that would address the critical infrastructure needs and recommended actions identified by this environmental scan. As its first task, the Council of Sponsors would develop a strategic plan for the health services research field. A strategic plan would identify not only the needs and priorities for the field, but also would articulate actions that must be taken to ensure the continuing viability of the field.

The Council of Sponsors would provide a much needed mechanism to continually assess the needs of both producers and users. To help achieve this goal, the Council would include representation from leaders of federal government agencies and national foundations that fund health services research, and participation from members of the research user community, including private purchasers, health plans, hospitals and other health facilities, and health consumer groups. This Council should provide the leadership, collective knowledge, and expertise that will be needed to reshape the health services research field, prioritize the nation's health services research agenda, improve research translation into practice, and ultimately improve health and health care in the United States.

Endnotes

1. AcademyHealth Report, *Placement, Coordination, and Funding of Health Services Research within the Federal Government*, September 2005, p. 1.
2. AcademyHealth is the professional home for health services researchers, policy analysts, and practitioners, and a leading, non-partisan resource for the best in health research and policy.
3. This finding is supported by results from AcademyHealth's 2006 member survey, which found that 49 percent of respondents ranked "offering professional development for the next generation of health services researchers" as a top priority.
4. Soriano R and Baugh T, "Power of Information: Closing the Gap Between Research and Policy," *Health Affairs*, Volume 21, Number 2, p. 271.



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