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Boosting Health Services Research

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We need a research program to improve the \$2.7 trillion per year health system.

The United States has mediocre health outcomes, and its health-care system performs abysmally when cost is factored in. In the 2000 World Health Organization (WHO) global ranking on health care, the United States nestled among Costa Rica, Slovenia, and Cuba at 37th (1). The United States ranked first in one category: expenditure per capita. Its “system attainment and performance” was 72nd, down with Argentina, Bhutan, and Nicaragua. WHO’s metrics have been heavily criticized and are at best rough indicators, but it is no secret that U.S. health care is expensive, unfairly distributed, and highly inefficient compared with that of other developed economies. The key question is how to address this problem without gutting the parts of the U.S. health-research infrastructure that are working well. How much of such research should get done and how should it be funded? What agency should do the health services and other kinds of research needed to improve the health-care system? And how should priorities among competing lines of research be decided?

Michael Crow recently proposed restructuring the National Institutes of Health (NIH), noting that world leadership in health research has not translated into leadership in health (2). He proposed an NIH comprised of three institutes. The lion’s share of today’s NIH, the biological sciences, would be consolidated into a “biomedical systems” institute. A “health outcomes” institute would address health services and patient-oriented research. A “health transformation” institute would sponsor research on economics, demographics, and factors affecting health. Crow’s call for more attention to research on health-care services and transforming the system of prevention and care is welcome, but NIH should not be the fulcrum for that transformation.

Why Not NIH?

One obvious danger of restructuring NIH is damage to research on disease and basic biology, doing less of it to make room for new kinds of research. Another risk is loss of focus caused by mission creep. NIH’s job is not even close to finished: Alzheimer’s disease, diabetes, cardiovascular disease, and cancer are not going away; we simply do not understand how to prevent or fully treat them. Moreover, there is a highly plausible case for government-funded research in producing knowledge that is necessary, but not sufficient, to develop new ways to prevent, detect, and treat diseases. A rich stream of publicly funded science has spawned vaccines, prevention methods, biotechnologies and medical services. Although it is notoriously difficult to link improvements in health outputs to research inputs, Manton and colleagues show a credible, consistent relationship between NIH research and improved health outcomes (3), and economic studies show strong “return on investment” in

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health research (4). We need more biomedical research, not less. Funding basic biology and disease research is not the part of our system that is broken; it is a part that works well.

A 2003 National Academies report recommended that “greater prominence must be given to research in the behavioral and social sciences, to health services research that is related to the more effective treatment of diseases and improvement of quality of life, and to the continuing evaluation of preventive interventions” [(6), p. 52]. NIH has a key role, but it does not follow that NIH should be the lead agency for public health or health services research.

Who Should Take Charge?

We do need to understand the peculiarities of the U.S. health and public health systems in order to fix them. There are already two agencies in the federal government that sponsor research on public health and on health services: the Centers for Disease Control and Prevention (CDC) and AHRQ, respectively. CDC is the nation’s foremost “public health” agency, with a critical research mission. For issues that involve risk communication, interfacing with state health departments, or studying contagion and public health interventions, CDC is the “go-to” agency rather than NIH.

Expertise in organization, financing, and delivery of health care is shared among the Agency for Healthcare Research and Quality (AHRQ), the Centers for Medicare and Medicaid Services (CMS), and other agencies. CMS programs alone spent \$887 billion in 2009 (7). The Veterans Health Administration (VA), military health system, and Indian Health Service all operate entire health care systems for defined populations. The federal government also pays for health care of military families and federal employees, and funds health services through the Substance Abuse and Mental Health Services Administration and the Health Resources and Services Administration. The federal government thus spends over a trillion dollars a year on health services and is the biggest payer and purveyor of health care in the world. If the goal is to change health outcomes, then doing research that enables federal health agencies to make better decisions is a great place to start. Among them, AHRQ alone has health services research as its core.

AHRQ conducts and supports health services research and patient-oriented research for the U.S. Department of Health and Human Services. Its mission is “to improve the quality, safety, efficiency, and effectiveness of health care for all Americans.” AHRQ originated in 1989 as the Agency for Health Care Policy and Research (AHCPR). AHCPR nearly died 6 years later. The House and Senate Budget Committees zeroed out its allocation, and Rep. Sam Johnson of Texas introduced a floor amendment to kill its appropriation. AHCPR politics were already complex (8), but its troubles were fomented by an angry constituency: displeased back surgeons objecting to an AHCPR clinical practice guideline (9).

Federal funding for health services research was rescued by a shift of mission, a change of name that removed “policy,” and a systematic effort to rebuild a bipartisan coalition to support it (8, 10). AHRQ stepped back from developing clinical practice guidelines, instead gathering the evidence that others organizations could use to develop guidelines. AHCPR morphed into AHRQ (see the figure), which emerged from the fray with a 21% budget cut.

AHCPR’s brush with oblivion makes plain the dangers confronting an agency whose research is relevant to health care policy. The experience led to a consensus on “production and synthesis of evidence as well as strategies to assure its use” (11) while avoiding recommendations for practice or policy. It also led health services researcher Jack Wennberg to argue that health services research should be based at NIH, because it had “the stature required to protect science against rogue critics” (12).

In 2008, AHRQ spent roughly \$335 million for health services research, compared with \$523 million from the private Robert Wood Johnson Foundation and NIH's \$1 billion (13). The Coalition for Health Services Research estimated federal expenditures for health services research at \$1.9 billion in 2011, corresponding to 4% of the overall health research budget, 0.19% of what the federal government spends on health services, and just 0.07% of national health expenditures (7, 14–15).

A bipartisan committee assembled by AcademyHealth in 2005 explicitly rejected the option that NIH take charge of research on the health-care system (16). It noted that only AHRQ had health services research as its central mission. Moving health services research into an NIH institute would lead to budget battles within NIH in which health services research would be the weak sibling.

Federal health services agencies need to be major users of such research. Coordination will be a huge task, but it pales in comparison with reaching the other users in the highly decentralized U.S. health system: private payers, state Medicaid programs, hospitals, clinics, and a myriad of city and county health and public health programs.

Funding Health Services Research

The central problem is underinvestment in health systems research and lack of research capacity in government health programs. Making AHRQ into an NIH Institute for Healthcare Research and Quality, even if AHRQ brings its \$372 million annual budget as a dowry, will not solve that problem. Some efficiency might be achieved by consolidation, although I believe other institutes and the National Library of Medicine would hesitate to transfer control of health services research components that address needs of their respective constituencies. But is the real problem organizational structure, or source and amount of funding? Current health services research expenditures just won't do the job; funding is insufficient compared to the trillion dollar flow of federal dollars and \$2.7 trillion in national health expenditures.

An immediate 0.5% AHRQ allocation from Medicare, Medicaid, *State Children's Health Insurance Program*, and other federal health programs would both double health-services research funding and link the source of funding to its principal users. A reasonable long-term goal is a one percent research budget to improve the other 99% of federally funded health services. The principle of public administration here is to harness research to mission, locating health-services research close to and coordinated with agencies that pay for and administer health programs. Moreover, funding through health services would avoid tradeoffs against NIH discretionary appropriations.

Toxic Politics

NIH has grown by the accretion of new institutes to meet needs of disease-based, scientific, or other constituencies (5). If anything, NIH already has too many institutes and is difficult to manage (17), as a litany of 10 reports dating back 50 years attests (6). Consolidating NIH's current units would offend the constituencies and might ignite vicious internecine politics, even without the problem of managing the considerable expansion of health-services research that is needed.

NIH does research that usually commands consensus across the political spectrum. Both political parties are against disease. Consensus evaporates only in unusual cases such as human embryonic stem cell research, when constituencies agree about combating disease but disagree about how.

Health services and public health research, in contrast, necessarily perturb constituencies whose livelihoods depend on the status quo. Health services research is often most valuable when it produces evidence about what works and what does not, at what cost, and points toward equal or better outcomes at same or lesser cost. That means changing practices and the ways people make money. Public health initiatives to change behavior affect the food, gun, and tobacco industries, and other politically potent constituencies. Such research creates enemies. It seems unwise to mix the politics of biomedical research with the politics of health care services and public health research. Rather than restructure NIH, we should boost health services research at AHRQ and fund it by tapping federal health care programs.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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