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Evidence-Based Policy Centers: A Proposal to Reinvent Government through Social Science

by
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Confidence in the ability of the social sciences to improve public policy has eroded during the past 35 years since the Great Society.[2] President Clinton s proposed Golden Age science budget of $78.2 billion increased many areas in medical research, energy efficiency, and other priorities in the natural sciences and technology. Yet the budget also made it clear that, even with anticipated surpluses, the social sciences are not making a comeback: the Administration s request assigned 0.0014 of the total to the social, behavioral and economic research budget of the National Science Foundation.[3]

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[2] For historical overviews see Harold Lasswell, Research in Policy Analysis: The Intelligence and Appraisal Functions, in Fred Greenstein and Nelson Polsby (Eds.), Handbook of Political Science (Reading, MA: Addison-Wesley, 1975), vol. 6 and references therein; Bruce Mazlish, The Uncertain Sciences (New Haven, CT: Yale University Press, 1998); George W. Downs and Patrick D. Larkey, The Search for Government Efficiency: From Hubris to Helplessness (NY: Random House, 1986).

[3] Curt Suplee, Clinton Asks Big Increase for Science, Technology Research, Washington Post, February 3, 1998, p. A9. Former Speaker Gingrich is playing a leading role to double the current national science budget but also expects the most beneficial

One part of the problem is that the social sciences are ineffective lobbyists. But a larger part of the problem appears to be hesitation, within the scientific community itself, about public support for the social sciences. Our nation s highest scientific advisory body, the President s Committee of Advisers on Science and Technology, while recognizing the distinction between belief-based v. empirically-based social and economic policy, has continued to defer recommendations for renewed progress in achieving empirically-based government policy, expressing doubt about the relative importance of these issues to the broader public. [4] Another concern - from distinguished social scientists themselves - may be skepticism that increased funding of their colleagues will, if channeled through traditional NSF and other mechanisms, actually produce civic benefit rather than unproductive academic arguments and an embarrassing level of goofiness.[5]

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breakthroughs to occur in the physical and biomedical sciences. See Newt Gingrich, We Must Fund the Scientific Revolution, The Washington Post, October 18, 1999, p. A19.

[4] Letter on behalf of Norman Augustine from Angela Phillips Diaz, Executive Secretary, October 26, 1995.

[5] E.g., [The current imitation of physics is self-limiting because] the part of economics that is independent of history and social context is not only small but dull. . . [And] there is a tendency to undervalue keen observation and shrewd generalization. . . [By contrast] there is a lot to be said in favor of staring at the piece of reality you are studying, and asking just what is going on here? Robert M. Solow, How Did Economics Get That Way and What Way Did It Get? Daedalus, 126:1, Winter, 1997, pp. 39-58. p. 56.

For a broader critique that, like Solow, remains unfortunately deficient in causal theory, see Charles E. Lindblom, Inquiry and Change: The Troubled Attempt to Understand and Shape Society (New Haven, CT: Yale University Press, 1992). Concerning problems that

Nevertheless - the doubts of several leading scientists not withstanding - the American people probably do want reality-grounded government policies that work. The bipartisan National Performance and Results Act (the Reinvention process) recommends a de facto scientific framework to improve government performance. Agencies are expected to identify the customers they serve, develop measurements of performance, and be accountable for improved results.[6] To be sure, the National Science Foundation has partly sought to evade accountability for progress in public policy (e.g., it has defined customers as grant applicants and boldly vowed to process applications for funds more efficiently). But it is difficult to imagine how any of this progress can occur without research to achieve empirically-based policy.[7]

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can be attributed to deficiencies in political courage (e.g., the end of advocacy for testing ideological assumptions, especially the failure to test policy assumptions of the political Right in the same manner as those of the Great Society) see Lloyd S. Etheredge, Problems of Scientific Integrity that Affect Unfunded Research. Testimony to the US Commission on Research Integrity, April 10, 1995. Harvard Medical School. Boston, MA. Xerox and idem. Commentary: The Scientific Scandal of the 1980s, Political Psychology, 15:3 (1994), pp. 531-539.

[6] See, for example, David Osborne and Peter Plastrik, Banishing Bureaucracy: the Five Strategies for Reinventing Government (Reading, MA: Addison-Wesley, 1997) and references therein.

[7] See for example Gerald Garvey's useful historical perspective, "False Promises: The NPR in Historical Perspective" in Donald F. Kettl and John J. Delulio, Jr., (Eds.), Inside the Reinvention Machine: Appraising Governmental Reform (Washington, DC: Brookings Institution, 1995), pp. 87-106; Downs and Larkey, op. cit.

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Evidence-Based Policy Centers

By a simple innovation we can begin to improve the effectiveness of government policies at all levels, increase the rate of scientific progress, and rebuild confidence in the contribution of social science in our national life.

Proposal: That Congress create, through competitive grants administered by the National Science Foundation, a network of Evidence-Based Policy (EBP) Centers in each area of high priority for national progress:

1.) These Centers will receive nominations of questions from Governors and Mayors; city, state, county, and national agencies; and any other organization or individual with civic interests - e.g., individual budget analysts or program managers, group purchasers, advocacy groups, individual citizens. The questions may request summaries of current evidence or answers that require new research. The only requirement will be that nominators have plans to use the answer.

2.) The Centers will, through advisory panels, develop and prioritize this open list of questions and begin to answer them. The criteria to prioritize the questions will include: a.)

the commonality of the question; b.) the potential benefits of knowing the answer; c.) the existence of unexplained variations, new ideas, or theoretical disputes suggesting that research can be productive; d.) the availability of existing research that can be drawn upon; e.) a cost of answering the question that makes it prohibitive for local or state governments to undertake the research themselves.[5]

3.) Annually, with their budget requests to Congress, the Centers will submit their prioritized lists, and quantitative measures of annual scientific progress, by categories similar to reporting the development and testing of new drugs (e.g., the number of new questions received; the total number of questions awaiting research funds; the number of questions undergoing evidence review; the number that have moved to the next stage and are currently undergoing exploratory or large-N definitive studies; the number of questions answered during the previous year, etc.).

4.) The (peer reviewed) analyses of evidence and new results developed by the Centers will be available to the public and agencies of government at all levels through

[5] The cost to answer the question will not affect the ranking. Whether the cost is prohibitive is a determination to be made by Congress. (It is not uncommon to spend hundreds of millions of dollars to build particle accelerators that can answer high priority questions in physics. And if equally good questions can be answered about the best ways to teach reading skills to slow learners, Congress may consider the money well-spent.)

Web sites and publication in scientific journals. Centers also will be encouraged to create regularly-scheduled Internet-based colloquia series to bring news about best practices and new research developments to their constituencies as quickly as possible.

This national innovation - creating a highly visible and well-focused question-posing and question-answering enterprise for public policy and enrolling the participation of many customers beyond academic applicants - should build a stronger constituency for new research funding. And it should create the best ally of social science, a well-represented desire (user-driven) to know the answer: For example, if many local School Boards want to know whether reducing class size below N=15 in grades K-3 increases academic achievement, Congress will receive information about who wishes to know the answer; the current evidence; how long it will take to get better evidence at current funding levels, etc.

(This coalition-building across levels of government may be especially useful to achieve a more rational level of funding. Economic theory has shown that scientific research is a public good that - in part because it is so widely beneficial to so many people - will be underfunded by the private sector and requires a role for government. But economic theory has been silent about which levels of government, and which agency s budgets, should pay the bill. Thus, by the same public goods logic, each individual city, county, and state

agency will tend to underfund research that, in the common interest of all public sector agencies (and the public), should be undertaken. For example, by now we ought to know whether (if at all) - and by how much - a local School Board can, by increasing homework, accelerate the rate at which elementary school kids learn addition. But the labor and expense involved in organizing research among those who want to know the answer makes this one of many policy areas where traditional practices (rather than empirically-based findings) govern.)[6]

- The independence of Evidence-Based Policy Centers should help to insulate the evaluation of hypotheses from partisan and interest-group pressures, and speed the benefits of empirical research for democratic problem-solving. Because questions will arise from (for example) state and local governments who want more workable and effective programs, and support a vigorous federalism, the EBP Centers should avoid the implication that federally-funded research in social, behavioral, and economic sciences is linked to political agendas to expand the role of the federal government.

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[6] This "public good" underfunding of science may even be true at the level of nation-states. For example, if there is a single universal answer to the question of the relation of class size to academic achievement in elementary school, it would be beneficial to all of the world's educational systems, in all countries (now, and forever) to know the answer.

See also the discussion, "Inadequate Representation of the Efficiency Value in Politics," in Downs and Larkey, op. cit., pp. 253-257.

- Because the EBP Centers will be problem-focused, they should have incentives to use multi-disciplinary approaches and be less likely to be entrapped into activities of disconnected academic interest. My instinct is that this complementary approach to funding social science can make EBP Centers the catalysts and new leaders in the social sciences themselves: In medical research, the goal of curing disease provides a shared and powerful framework that breaks-through disciplinary boundaries, recognizes achievements that serve common goals, and spurs astonishing progress.

- EBP Centers will be permitted - indeed, encouraged - to solicit questions. Because EBP Centers will be funded by competitive and renewable grants, the Centers - with an eye to their grant-renewal process - will have incentives to pose and answer questions of wide interest and impact.[7]

A final thought about this proposal: The federal government already is developing experience with an analog to these Evidence-Based Policy Centers in medical research. These 12 Evidence-Based Practice Centers, funded by the Agency for Health Care Policy and Research in the US and Canada (McMaster University), began in 1997, have received

[7] While EBP Centers can be created de novo, existing institutions (e.g., the National Governors Association, policy research centers in leading states or at universities, for-profit research companies) also can apply and use these grants to strengthen their programs.

requests for more than 250 topics, and are providing a steady stream of reports to inform choices, and the (empirically-based) effectiveness and quality of care for the Medicare and Medicaid populations.[8]

[8] Agency for Health Care Policy and Research, AHCPR Fact Sheet: AHCPR's Evidence-based Practice Centers. (Rockville, MD: US Dept. of Health and Human Services, Public Health Service, 1999). AHCPR Pub. No. 98-P005. Revised January 11, 1999. I am indebted to Lynn Etheredge for bringing the AHCPR model to my attention. The criteria for establishing priorities, used in this paper, draw upon the AHCPR model.

AHCPR FACT SHEET

Agency for Health Care Policy and Research • 2101 East Jefferson Street • Rockville, MD 20852

AHCPR's Evidence-based Practice Centers

Program Purpose

In 1997 the Agency for Health Care Policy and Research (AHCPR) launched its initiative to promote evidence-based practice in everyday care through establishment of 12 Evidence-based Practice Centers (EPCs). The EPCs develop evidence reports and technology assessments on clinical topics that are common, expensive, and/or are significant for the Medicare and Medicaid populations. With this program, AHCPR became a "science partner" with private and public organizations in their efforts to improve the quality, effectiveness, and appropriateness of clinical care by facilitating the translation of evidence-based research findings into clinical practice.

Development of Evidence Reports and Technology Assessments

The EPCs develop evidence reports and technology assessments based on rigorous, comprehensive reviews of relevant scientific literature, emphasizing explicit and detailed documentation of methods, rationale, and assumptions. These scientific syntheses may include meta-analyses and cost analyses. All EPCs collaborate with other medical and research organizations so that a broad range of experts is included in the development process. (See box, next page, for a list of the 12 EPCs and topics announced through October 1998.)

Potential Users

Evidence reports and technology assessments provide a foundation that public and private entities may use to develop and implement their own practice guidelines, performance measures, review criteria, and other clinical quality improvement tools. In addition, they may give health plans and payers information needed to make informed decisions about coverage policies for new and changing medical devices and procedures. Potential users of these evidence reports and technology assessments include clinicians, medical and professional associations, health system managers, researchers, group purchasers, program managers, consumer organizations, and policymakers.

Topic Nomination Procedure

Nominations of topics for EPC evidence reports and technology assessments are solicited routinely through notices in the *Federal Register*. Topic nominations also are accepted on an ongoing basis. Specific information that should accompany nominations includes the potential questions to be answered by the report or assessment, availability of scientific data, disease prevalence and/or severity, practice variation patterns, and descriptions of plans for using the evidence report or technology assessment to improve quality of care. (See the *Federal Register*, Nov. 28, 1997, vol. 62, No. 229, 63345-63346 for complete details on the nomination and selection process.)

Professional associations, health plans, providers, and others that nominate topics may act as partners with EPCs, providing technical expertise and serving as peer reviewers of the final product. Partners are expected to translate the findings from the evidence reports and technology assessments into practice guidelines or other implementation tools to improve quality of care within their respective organizations. AHCPR expects that future evidence reports and technology assessments will be developed in the following broad topic areas: child and adolescent health, maternal health, geriatrics, dental health, mental health and substance abuse, rehabilitation, and preventive care.

EPCs and Their Topics

Evidence-based Practice Centers	Evidence Report Topics
Blue Cross/Blue Shield Association, Technology Evaluation Center, Chicago, IL	1)Testosterone suppression treatment for prostatic cancer 2) Use of erythropoietin in hematology and oncology
Duke University, Durham, NC	1) Evaluation of cervical cytology 2) Management of acute chronic obstructive pulmonary disease
ECRI, Plymouth Meeting, PA	1) Diagnosis and treatment of dysphagia/swallowing problems in the elderly 2) Criteria for determining disability in patients with end stage renal disease
Johns Hopkins University, Baltimore, MD	1) Evaluation and treatment of new onset of atrial fibrillation in the elderly 2) Treatment of acne 3) Anesthesia management during cataract surgery
McMaster University, Hamilton, Ontario, Canada	1) Treatment of attention deficit/hyperactivity disorder 2) Criteria for weaning from mechanical ventilation
MetaWorks, Inc., Boston, MA	1) Diagnosis of sleep apnea
New England Medical Center, Boston, MA	1) Diagnosis and treatment of acute sinusitis 2) Management of cancer pain 3) Evaluation of technologies for identifying acute cardiac ischemia in the emergency department
Oregon Health Sciences University, Portland, OR*	1) Rehabilitation of persons with traumatic brain injury
Southern California Evidence-based Practice Center-RAND Corporation, Santa Monica, CA	1) Prevention and management of urinary tract infections in paralyzed persons 2) Management of acute otitis media 3) Prevention of venous mboembolism after injury
Research Triangle Institute and University of North Carolina at Chapel Hill, NC*	1) Pharmacotherapy for alcohol dependence 2) Management of preterm labor
University of California, San Francisco, CA, and Stanford University, Stanford, CA	1) Management of stable angina 2) Management of unstable angina
University of Texas Health Sciences Center, San Antonio, TX	1) Depression treatment with new drugs 2) Management of chronic hypertension during pregnancy

***Technical support for U.S. Preventive Services Task Force**

For More Information

AHCPR's Center for Practice and Technology Assessment oversees the evidence-based practice program. For more information about the program, EPCs, and topic nominations, contact:

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Evidence-based Practice Center Program

- Created in 1997
- 12 Centers
- Produce evidence reports/technology assessments
- "User" driven

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Topic Nominations

- Routinely solicited in *Federal Register*
- Hundreds submitted so far 25rt as for
- Accepted on an ongoing basis
- Any organization may nominate
- Must have plans to use it

Topic Selection Criteria

- Common
- Costly
- Important to Medicare
- Inappropriate variations
- Clinical uncertainty
- Evidence exists
- Program balance

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The National Guideline Clearinghouse™ www.guideline.gov

Purpose

The Agency for Health Care Policy and Research (AHCPR), in partnership with the American Association of Health Plans (AAHP) and the American Medical Association (AMA), is sponsoring a World Wide Web-based National Guideline Clearinghouse (NGC)™. The NGC™ is a publicly available electronic repository for clinical practice guidelines and related materials that provides online access to guidelines at www.guideline.gov.

Rationale

The development and use of clinical practice guidelines has grown markedly in the past 5 years. This growth is due to increased interest in improving the quality of health care, reducing uncertainty and variability in health care decisionmaking, and reducing health care costs. As a result of the increase in the number of clinical practice guidelines, many health care providers, systems (including health plans), purchasers, and consumers have difficulty gaining access to and keeping abreast of the many guidelines in use. Moreover, guidelines often differ in content, recommendations, and development methodology, further complicating their use.

Functions of the National Guideline Clearinghouse™

The National Guideline Clearinghouse™ facilitates more widespread access to guidelines than is currently available to the general public. The NGC™ accomplishs this by including the following elements:

- A *standardized abstract* containing information about each guideline and how it was developed;
- *Full text* of guidelines (if possible) or links to full text (if not) and information on how to obtain the full text of the guideline;
- *Comparisons of guidelines* that cover similar topic areas, with major interventions and areas of agreement and disagreement; and
- *Topic-related electronic mail groups* where registered users may exchange information about aspects of guideline development, content, and implementation.

Operational oversight of the NGC™ resides within AHCPR's Center for Practice and Technology Assessment.

NGC™ Audiences and Uses

The NGC™ has its own website on the World Wide Web (www.guideline.gov) and is available free of charge. Internet users are able to find guidelines by searching on the guideline topic, developer, or other criteria. Thousands of guidelines ultimately will be indexed, allowing rapid access to key recommendations and assessments on hundreds of topics for varied audiences:

- *Individual physicians and other providers* can review and evaluate comprehensive sources of information to assist them with clinical decisionmaking and patient counseling in the practice setting.
- *Health care systems and integrated delivery systems* may use the information accessible through the NGC™ to adopt, or adapt, guidelines in their provider networks.
- *Medical specialty and professional societies* can use guidelines from several sources covering similar health conditions in their own guideline development efforts.
- *Employers and other large purchasers* can use information from the NGC™ to assist them in making more informed health care benefits purchasing decisions.
- *Educational institutions* can incorporate information accessible through the NGC™ into their curricula and continuing education efforts.
- *State and local governments* can access up-to-date information from the NGC™ to help meet their quality assurance and program oversight responsibilities.

Criteria for Inclusion of Guidelines in the NGC™

A clinical practice guideline must meet the following criteria to be included in the NGC™:

- It contains systematically developed statements including recommendations, strategies, or information that assists

physicians and/or other health care practitioners and patients to make decisions about appropriate health care for specific clinical circumstances. This is in accord with the definition of "clinical practice guidelines" as set forth by the Institute of Medicine in 1990.

- It was produced under the auspices of medical specialty associations; relevant professional societies; public or private organizations; government agencies at the Federal, State, or local level; or health care organizations or plans.
- Corroborating documentation can be produced, verifying that a systematic literature search and review of existing scientific evidence published in peer-reviewed journals was performed during the guideline development process.
- The guideline is in English, current, and the most recent version (i.e., developed, reviewed, or revised within the last 5 years).

How To Submit Guidelines to the NGC™

Organizations interested in contributing to the National Guideline Clearinghouse™ should submit two typed paper copies of each guideline and related background information. An electronic version on disk should be submitted as well, if available. Name, business address, telephone, and e-mail address of a contact person should be included. The information should be sent to:

Vivian Coates
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For More Information

More information on the National Guideline Clearinghouse™ can be obtained from:

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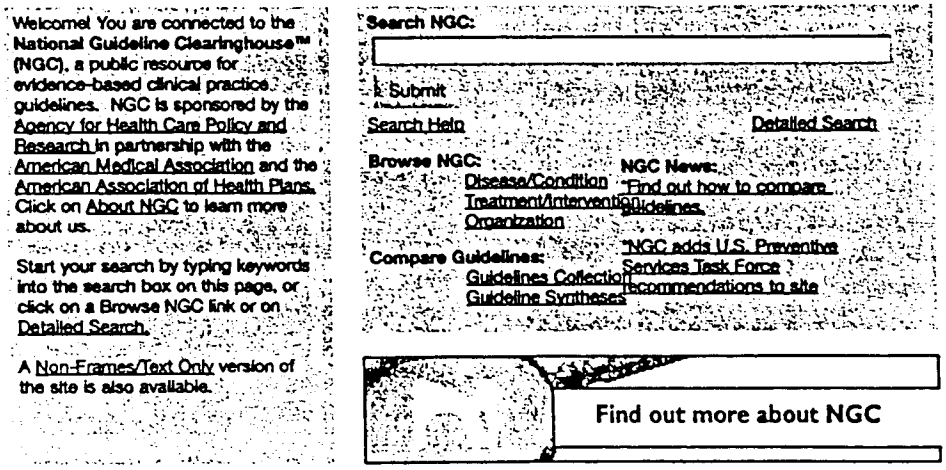

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