Who Pays for Primary Care Research?

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Success in the conduct of clinical research often depends critically on obtaining money from extradepartmental sources to pay for such things as research assistants, data entry, and computer programming. Faculty in clinical departments usually can develop research programs only to the extent that they are able to obtain extradepartmental monetary support for their time contribution to research activities. Surveys have identified lack of funding as a major obstacle to development of research in departments with an interest and involvement in primary care, and anecdotal reports perpetuate this belief.[1–5]

The extent to which primary care research is funded and the sources of funding for funded projects are largely unknown. Recognizing that publication is the most desired end result of research, reports of completed research were used to address these two issues.

METHODS

Reports of original research published in seven journals (Table 1) were reviewed for the period July 1, 1987, through June 30, 1988, to identify projects that met the definition as primary care research (Table 2). This definition of primary care research had five components and was a modification of a definition used by the National Institutes of Health for training grants in primary care research.[6]

Each journal article published in the seven journals for the period of study was reviewed by two of the investigators (D.B.P. and M.C.M.) and included if it met the definition as primary care research and did not deal with children, adolescents, or pregnancy. Information on all sources of funding was abstracted from the published report.

Submitted, revised, August 22, 1989.

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RESULTS

One hundred forty-nine articles that met the definition of primary care research were identified. Ninety-one (61.1%) of the 149 research articles cited at least one source of funding. Of the 91 funded projects, 60 (65.9%) cited a single funding source, and 31 (34.1%) cited more than one source.

There were 142 citations to 81 different funding sources. Federal and foundation sources were cited 50 and 46 times, respectively (Table 3), and these two categories accounted for over two thirds of all funding citations. The Robert Wood Johnson Foundation was the single source of funding cited most often, but it was cited only 10 times.

DISCUSSION

The most striking finding in this study is the diversity of the sources of funding and the lack of any single source that accounts for a large percentage of funding citations. A researcher seeking to develop a primary care research program would have to be familiar with the funding guidelines, priorities, and application procedures of a large number of different institutions, and the work involved in supporting a large-scale primary care research effort would be greater than the work necessary to support a research effort in, for example, clinical cardiology. Because the sources of funding for a primary care research program are diverse, it is likely to be difficult for an individual investigator to establish a track record with a single institution. For many institutions, the lack of a track record decreases the probability of success in obtaining funds from that institution.

This study has some important limitations. First, only seven journals were reviewed, and not all primary care research is published in these seven journals. Second, this study relates only to published primary care research. Since publication is the most desired end product of research, use of published reports seems a reasonable way to judge the questions of funding level and sources. Third, research on children and adolescents and research on con-

TABLE 1. SEVEN JOURNALS REVIEWED TO IDENTIFY REPORTS OF PRIMARY CARE RESEARCH AND DISTRIBUTION OF PRIMARY CARE RESEARCH ARTICLES IN EACH JOURNAL (July 1, 1987–July 31, 1988)

Journal	Number of Articles	Percent of Distribution
Annals of Internal Medicine	18	12.1
The Journal of the American Medical Association	28	18.8
The Journal of Family Practice	47	31.5
Journal of General Internal Medicine	17	11.4
Medical Care	20	13.4
The New England Journal of Medicine	14	9.4
The Western Journal of Medicine	5	3.4
All	149	100.00

TABLE 2. DEFINITION OF PRIMARY CARE RESEARCH USED AND DISTRIBUTION OF ARTICLES BY TYPE OF RESEARCH

Type of Research	Number of Articles	Percent of Distribution
Research on conditions likely to be encountered and managed by those providing routine medical care or on first contact with the health care system	87	58.4
Research on the organization, financing, or utilization of primary care	7	4.7
Research on decision making by primary care physicians about hospitalization, technology use, and referral to specialists	20	13.4
Research to evaluate the effectiveness of interventions to change the behavior of primary care physicians in terms of their management and/or referral of patients	3	2.0
Research describing primary care physicians or their patients, or the way primary care physicians diagnose or manage their patients	32	21.5
All	149	100.0

TABLE 3. SOURCES OF FUNDING FOR 91 ARTICLES WITH AT LEAST ONE FUNDING SOURCE

Source	Number of Times Cited
Federal	
Health Care Financing Administration	1
National Center for Health Services Research	6
National Cancer Institute	1
National Heart, Lung and Blood Institute	8
National Institute on Aging	4
National Institute on Allergy and Infectious Disease	1
National Institute of Diabetes, Digestive and Kidney Disease	1
National Institute of Mental Health	4
Veteran's Administration	6
National Library of Medicine	6
Other Federal	11
State and Local Government Foundation	
John A. Hartford Foundation	3
Kaiser Family Foundation	4
Kellogg Foundation	3
Mellon Foundation	1
Robert Wood Johnson Foundation	10
William T. Grant Foundation	1
Family Health Foundation	4
Other foundation	20
Private Company	
Pharmaceutical company	16
Private industry other than pharmaceutical company	5
Unspecified private company	2
Internal University	7
Other, Unspecified	
Foreign source	4
Medical professional organization	9
Other and unspecified	3
Total funding citations	142

ditions in pregnancy were excluded, and the results are not entirely generalizable because the review was limited to conditions in adults. Fourth, the results apply only to primary care research as defined. Last, only sources of funding cited by authors were identified. Most journals do not require authors to cite these sources. On the other hand, most funding agencies request credit for support they have provided. If other sources of support had been identified by contacting authors, the diversity of funding sources would have increased; the conclusions, therefore, are conservative.

The ability to find definitive and correct answers to important questions in primary care may be compromised by the existence of a diverse and ill-defined array of fund-

ing sources. The development of a national institute for primary care research deserves consideration as a way of overcoming the problem.

Acknowledgment

This work was funded in part by a grant from the Bureau of Health Professions, Health Resources and Services Administration, Grants for the Establishment of Departments of Family Medicine (2D32 PE 19002).

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