



Report on Research Productivity in Family Medicine, 1999 & 2000

Report to the NAPCRG Committee on Building Research Capacity

Donald Pathman, MD MPH, George Gamble, PhD,
Samruddhi Thaker MBBS MHA, Warren Newton, MD MPH

Department of Family Medicine, University of North Carolina at Chapel Hill

November 17, 2002

(Modestly amended October 29, 2004 for posting on NAPCRG Website)

The Committee's and UNC's Charge

In the spring of 2000, the Affiliated Family Medicine Organizations (AFMO) asked its Research Subcommittee, the NAPCRG Committee on Building Research Capacity, to oversee the design, execution and dissemination of a periodic report on research productivity in family medicine in the United States. The Department of Family Medicine of the University of North Carolina at Chapel Hill was given the task of planning and initiating this effort on behalf of the Committee. This document is UNC's report to the Committee.

This report briefly describes the methods we used to identify family medicine's published research for the years 1999 and 2000 and presents descriptive findings of basic outcomes. An accompanying document ("Identifying Published Family Medicine Research: Search Methods, Lessons Learned and Recommendations for the Future") further details how we identified family medicine research papers and researcher-authors.

Brief Background

It is a common perception that there are too few family physician-researchers, too few published studies relevant to the clinical work of family physicians, insufficient funds available to support family medicine research, and that the quality of the discipline's research is inadequate. Based on these perceptions, family medicine's leading organizations and academic departments have worked to expand research in the discipline. Their efforts have been undertaken, however, in the absence of firm data quantifying the actual volume of family medicine research produced. Without baseline or periodic quantification, it is not known how far the field has come after two decades of broad interventions.

Project Goals

This project's goal was to collect and analyze data and generate a first report documenting the output of family medicine's researchers. This report was intended to be credible, widely disseminated, and meet the monitoring needs of the discipline and its researchers. Primary outcome measures were to be the number of research articles published with family medicine researchers as lead authors and coauthors over a specified period of time and the number of family medicine researchers who published. Other important measures were the proportion of family medicine's research published in family medicine journals versus other journals and the number of articles published in top-tier journals.

Eligibility of Articles and Authors

We identified research appearing in US or international journals with 1999 and 2000 publishing dates, a 24-month window. We identified articles by authors working in family medicine organizations, whether or not they were family physicians. To be eligible as a research article papers must have presented and analyzed new data or undertaken new analyses of existing data. For this initiative, we did not define "family medicine research," set limits on the nature of work to be accepted as "family medicine research" or exclude work based on its relevance to family practice. We included clinical and health services research, public health and sociological investigations and program evaluations. We did not judge or exclude papers based on perceived quality or methods.

Eligible family medicine researcher-authors were authors listed with affiliations in US family medicine organizations: (1) academic departments of family medicine (allopathic and osteopathic) and family medicine divisions of joint departments (e.g., departments of family and community medicine or family and preventive medicine), (2) family practice residencies, (3) family practice departments of hospitals, and (4) other family practice organizations (e.g., the AAFP). Both family physicians and researchers trained in other disciplines (e.g., PhDs, MPHs, and BAs) were included when they worked in eligible settings. We included family practitioners who worked in any type of setting.

These operational definitions left uncounted several important areas of family medicine research, specifically (1) research disseminated through vehicles other than journals and (2) journal articles relevant to family practice but published by non family physician-researchers working in non-family medicine organizations. Further, this project did not include non-research scholarly work, like review articles, editorials, case reports, POEMs and program descriptions that presented no evaluative data.

Data

Eligible researcher-authors and articles were found by a variety of search strategies, detailed in an accompanying report, "Identifying Published Family Medicine Research: Search Methods, Lessons Learned and Recommendations for the Future". In brief, we (1) hand-searched print copies of all issues of 80 relevant journals, (2) electronically searched the National Library of Medicine's health periodicals files under the term "family" in the organization field, (3) electronically searched under the names of eligible authors identified through the print copy and organizational field searches, then searched again under the names of eligible co-authors identified on articles retrieved in the first round of e-searches, and then searched a third time under the names of any new eligible authors found on the second round of author e-searches. We surveyed the chairs of joint departments (e.g., departments of "family and community medicine") to clarify who among their non-family physician authors they considered "family medicine researchers." When in doubt about authors' eligibility we also searched department, residency and hospital web sites and other on-line sources.

We created two Excel databases, one listing articles with full citations and the other listing authors and their academic degrees, organizations, the identification number of each article from the first file on which they were an author, and an indicator of whether they were the lead or secondary author on each article.

Findings

A. Numbers of published research articles

1. Total number of eligible research articles in 1999 and 2000:	980
1999:	484
2000:	496
2. Number of research articles with FM researcher as lead author in 1999 and 2000:	690
3. Number of research articles for which the lead author was not a FM researcher in 1999 and 2000:	290

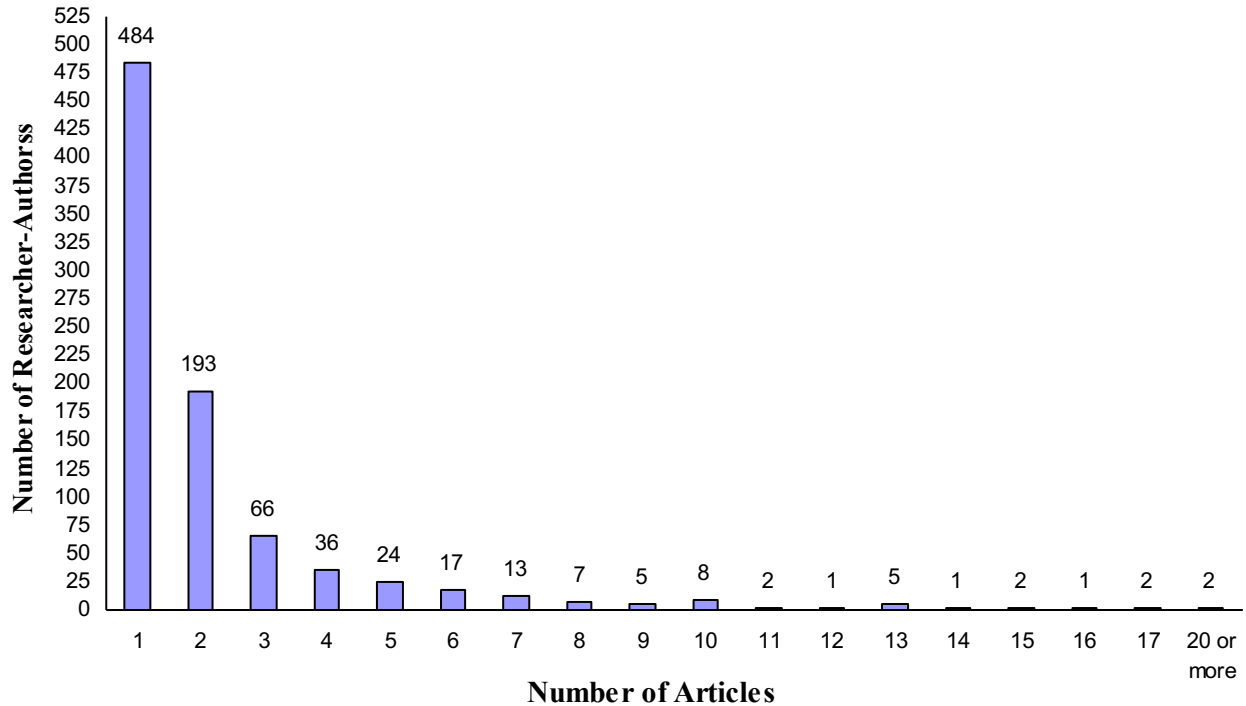
B. Numbers of family medicine research-authors

1. Total number of FM researcher-authors in 1999 and 2000:	869
2. Total number of FM researcher-authors who were lead authors on at least one paper in 1999 and 2000:	433

C. Productivity of FM research-authors

1. Number of articles from each FM researcher-author:	
mean:	2.24 articles
median:	1 article
mode:	1 article
range:	1 – 28 articles
2. Distribution of number of articles by each FM researcher-author:	
1 to 5 articles:	803 authors (92.41%)
6 to 10 articles:	50 authors (5.75%)
11 or more articles:	16 authors (1.84%)

Distribution of the Number of Articles by Each FM Researcher-Author



3. Most prolific authors: 16 FM researcher-authors published 11 or more research articles in 1999 and 2000. Together they published 243 articles, 24.8% of all articles published by eligible FM researcher-authors over these two years.

Mainous III	Arch G.	Medical U South Carolina	28
Hueston	William J.	Medical U South Carolina	22
Franks	Peter	U Rochester	17
Frank	Erica	Emory U School of Medicine	17
Yawn	Barbara P.	Olmsted Medical Center	16
Selby	Joseph V.	Kaiser Permanente, Northern Calif	15
Grumbach	Kevin	U California, San Francisco	15
Zyzanski	Stephen J.	Case Western Reserve U	14
Stange	Kurt C.	Case Western Reserve U	13
Skipper	Betty	U New Mexico	13
Roetzheim	Richard G.	U South Florida	13
Pal	Naazneen	U South Florida	13
Dietrich	Allen J.	Dartmouth Medical School	13
Gelberg	Lillian	U California, Los Angeles	12
Hart L.	Gary	U Washington	11
Gonzalez	Eduardo C.	U South Florida	11

D. Journals

1. Total number of journals in which eligible FM researcher-authors published their work in 1999 and 2000: 236

2. Number of journals in which FM researcher-authors published 10 or more research articles in 1999 and 2000: 19

3. Journals publishing 10 or more research articles from FM researchers in 1999 and 2000 combined:

Journal Title	# articles
Journal of Family Practice	135
Family Medicine	86
Archives of Family Medicine	83
Academic Medicine	43
Journal of the American Board of Family Practice	36
Medical Care	24
Journal of American Medical Association	20
American Journal of Public Health	17
Journal of American Geriatric Society	17
Preventive Medicine	16
Obstetrics & Gynecology	14
Journal of General Internal Medicine	13
Journal of Rural Health	13
Pediatrics	12
American Journal of Preventive Medicine	11
Archives of Pediatric and Adolescent Medicine	11
South Medical Journal	11
Teaching and Learning in Medicine	11
Archives of Internal Medicine	10

Together, these 19 journals published 583 (59.5%) of the 980 total articles identified from FM researcher-authors in 1999 and 2000.

4. FM researcher-authors published 340 research articles in the four US family medicine journals that published research, which constitute 34.7% of all of articles from FM researcher-authors in 1999 and 2000.

5. FM researchers published 30 articles in top-tier journals:

JAMA	20
NEJM	4
British Medical Journal	3
Annals of Internal Medicine	3
Lancet	0

E. Organizations in which FM researcher-authors work

1. Organizational affiliations of FM researcher-authors:

Academic family medicine departments	83%
Community hospital FP residencies	10%
Community practices	3%
Other FM organizations	1%
Non FM organizations	1%
Military organizations	1%
Missing/Uncertain organizations.	1%