

POLICY BRIEF

Lost in Translation: NIH Funding for Family Medicine Research Remains Limited

Brianna J. Cameron, MPH, Andrew W. Bazemore, MD, MPH, and Christopher P. Morley, PhD, MA

Departments of Family Medicine (DFMs) in the United States consistently received around 0.2% of total research funding dollars and 0.3% of all awards awarded by the National Institutes of Health (NIH) across the years 2002 to 2014. We used the NIH Reporter tool to quantify the amount of funding and the number of grants received by DFMs from the NIH from 2002 to 2014, using criteria similar to those applied by previous researchers. NIH funding to DFMs as remained fairly consistent across the time period, at roughly 0.2% of total NIH funding and 0.3% of total grants awarded. Changing these proportions will likely require considerable effort to build research capacity within DFMs and their frontline practice research networks, and to shift policymaker and funder perceptions of the value of the FM research enterprise. (J Am Board Fam Med 2016; 29:528–530.)

Keywords: Awards & Prizes, Family Practice, Grants, Primary Health Care, Research

Among medical specialties, Family Medicine (FM) provides care across perhaps the broadest spectrum of conditions, settings, and populations, while hav-

ing one of the smallest research enterprises. Departments of FM (DFMs) in the United States consistently received around 0.2% of total research funding dollars and 0.3% of all awards awarded by the National Institutes of Health (NIH) across the years 2002 to 2014.

This article was externally peer reviewed.
 Submitted 10 February 2016; revised 1 April 2016; accepted 18 April 2016.

From Central New York Master of Public Health Alumnus, SUNY Upstate Medical University, Syracuse, NY (BJC); the Robert Graham Center for Policy Studies, Washington, DC (AWB); and the Departments of Family Medicine, Public Health & Preventive Medicine, and Psychiatry & Behavioral Sciences, SUNY Upstate Medical University, Syracuse (CPM).

Funding: This project was supported in part by the Health Resources and Services Administration of the U.S. Department of Health and Human Services under grant number D54HP23297, “Academic Administrative Units,” for roughly \$2000 (total award amount \$154,765; 90% financed with non-governmental sources), corresponding to the amount of effort dedicated to this project by the lead author (BJC).

Conflict of interest: none declared.

Disclaimer: This information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by, the Health Resources and Services Administration, the U.S. Department of Health and Human Services, or the U.S. government.

Corresponding author: Christopher P. Morley, PhD, MA, Department of Family Medicine, SUNY Upstate Medical University, 750 East Adams St, MIMC 200, Syracuse, NY 13066 (E-mail: morleycp@upstate.edu).

See Related Commentary on page 525

As the largest group of physician providers in primary care, the nation’s largest health care delivery platform,¹ FM offers considerable potential to conduct original and translational² research that informs achievement of the triple aim.³ However, the FM research enterprise receives little funding from the world’s largest biomedical research funder, the NIH, when compared with its specialty peers.⁴ Previous analyses from the Robert Graham Center determined that DFMs received \$187 million of the \$95 billion in total research funding dollars awarded by the NIH between 2002 to 2006.⁵ Since that analysis, it is unknown whether the Patient Protection and Affordable Care Act, NIH Roadmap efforts to increase translational research, or increased national attention to primary care has altered NIH funding to FM.

Developed since the previous study by the Robert Graham Center, the NIH RePORTER tool⁵ provides a central repository of information on all NIH awards, including the investigator and institution assigned to each. We used this resource to

Table 1. National Institutes of Health Grant Dollars (in Millions) and Number of Grants Awarded to Departments of Family Medicine from 2002 to 2014

	2002–2006*	2007–2010	2011–2014
Total grant dollars received by FM, 2014	\$57 million	\$76 million	\$71 million
Total grant dollars awarded by NIH, 2014	\$28,451 million	\$38,002 million	\$32,985 million
Total NIH grant dollars awarded to FM (%)	0.20	0.20	0.22
Total grants received by FM (n)	170	224	192
Total grants awarded by NIH (n)	60,227	71,777	65,603
Total NIH grants awarded to FM (%)	0.28	0.31	0.29

*Differs slightly from the findings of Lucan et al,⁴ who used data directly from the Office of Extramural Research. FM, family medicine; NIH, National Institutes of Health.

quantify the amount of funding and the number of grants received by DFMs from the NIH from 2002 to 2014, using criteria similar to those applied by Lucan et al.⁴ These totals were compared with total funding (adjusted to 2014 dollars using Consumer Price Index data from the US Bureau of Labor and Statistics) and the number of projects that the NIH awards across all disciplines to obtain the proportions reported in Table 1. To provide context, we also obtained data from the NIH RePORTER on NIH grant submissions and success rates between 2006 and 2015. The NIH received 229,209 submissions over that time period, with a 20.6% success rate; 1,633 of those submissions came from DFMs, of which only 15.4% were successful. FM faculty submitted 0.7% of all grants but represent only 0.5% of awards. Further detail is presented in Table 2.

Our comprehensive review of the RePORTER database suggests that NIH funding to DFMs remained proportionally consistent across the study period—around 0.2% of total funding and 0.3% of total grants awarded. Study limitations include the risk of misclassification of the principal investigators’ departmental affiliations and the inability to capture coinvestigator funding, though both could either inflate or reduce the reported proportion of funding and grants to DFMs.

It is apparent across all metrics evaluated here that DFMs continue to receive a small portion of awards and funding from the NIH, particularly relative to their proportion of the physician workforce in direct patient care (or health care service delivery). The degree to which these issues reflect a bias against generalist inquiry, the makeup of review committees, a lower priority on research among DFMs, or other factors is unknown. While family physicians often provide inpatient services

(including roles as hospitalists, in obstetrics, and in urgent/emergency care), the main focus of FM as a specialty is on the ambulatory, outpatient setting. As such, it requires evidence to inform whole-patient, community-relevant care delivered in that setting. A plan for achieving this goal has recently been proposed.⁶ In addition, the “Health is Primary” campaign to envision the future of FM includes a distinct call for increasing research capacity.³ However, changing these proportions will require considerable effort to build research capacity within DFMs and their frontline practice research networks, and to shift policymaker and funder perceptions of the value of the FM research enterprise.

Table 2. Comparison of Awards Reviewed versus Awarded, for All Departments and Family Medicine Only*

Fiscal Year	Applications					
	All Departments			Family Medicine		
	Reviewed (n)	Awarded (n)	Success Rate (%)	Reviewed (n)	Awarded (n)	Success Rate (%)
2006	22,339	4,670	20.9	187	25	13.4
2007	22,981	5,162	22.5	168	27	16.1
2008	21,113	4,919	23.3	145	26	17.9
2009	20,846	4,585	22.0	173	30	17.3
2010	21,954	4,840	22.0	161	23	14.3
2011	23,230	4,409	19.0	159	25	15.7
2012	24,389	4,646	19.0	161	19	11.8
2013	23,738	4,376	18.4	171	28	16.4
2014	24,153	4,722	19.6	158	23	14.6
2015	24,466	4,876	19.9	150	25	16.7
Total	229,209	47,205	20.6	1,633	251	15.4

*Data obtained from the NIH Research Portfolio Online Reporting Tools (RePORT). Funding. Available from: https://report.nih.gov/success_rates/index.aspx. Accessed July 19, 2016.

References

1. Green LA, Fryer GE Jr, Yawn BP, Lanier D, Dovey SM. The ecology of medical care revisited. *N Engl J Med*. 2001;344:2021–5.
2. Westfall JM, Mold J, Fagnan L. Practice-based research—“Blue Highways” on the NIH roadmap. *JAMA* 2007;297:403–6.
3. Phillips RL, Pugno PA, Saultz JW, et al. Health is primary: family medicine for America’s health. *Ann Fam Med* 2014;12(Suppl 1):S1–12.
4. Lucan SC, Phillips RL Jr, Bazemore AW. Off the roadmap? Family medicine’s grant funding and committee representation at NIH. *Ann Fam Med* 2008;6: 534–42.
5. U.S. Department of Health & Human Services. NIH Research Portfolio Online Reporting Tools (RePORT). Available from: <http://report.nih.gov/index.aspx>. Accessed December 14, 2015.
6. deGruy FV, Ewigman B, DeVoe JE, et al. A plan for useful and timely family medicine and primary care research. *Fam Med* 2015;47:636–42.