

improve the quality of their survey-based research. Survey-based research is low cost and has proliferated over time, particularly to constituent groups like residency directors and department chairs. This has led to lower response rates and an appeal by the STFM Board of Directors to the STFM Research Committee to devise new strategies to improve the survey process.

CERA has therefore been designed with the following in mind: (1) to reduce the administrative burden on residency directors and others, (2) to improve the quality of data that is generated through increased response rates to a consolidated annual survey and through peer review of survey items, (3) to provide a resource for research and scholarly activity to all faculty, particularly those without significant prior research experience and (4) to provide a resource for residents so that they can meet their scholarly and research requirements.⁶⁹

CERA will provide 3 main components: (1) Infrastructure for survey development, implementation, data management, and warehousing; (2) faculty mentoring and expertise for clarifying the purpose of the research, defining the study population, selecting survey items, and analyzing and interpreting the data; (3) access to data for members of all participating organizations.

A central repository of data will be generated and housed at STFM. The data will include annual surveys to department chairs, residency directors, clerkship directors, and behavioral science directors. These surveys will consist of questions that are repeated every year, and in addition, investigator-initiated modules of questions added annually to each survey. These will be solicited from members at large through a competitive application process and will be reviewed and approved by the CERA review committee. The CERA review committee's role is to provide mentoring and assistance in development of the proposals if needed, to provide scientific evaluation of each proposal and to ensure that there is no duplication of content areas. After data collection, successful applicants will have sole access to the data for 3 months and then after that time the data will be made available to the whole community. CERA will take responsibility for all data collection and management.

While initially CERA will focus on survey-based research, eventually it should help family medicine educators to undertake multi-site experimental studies. These educators, many of whom are residency faculty, rarely have the resources, the statistical consultants, or mentoring available to them to conduct high-quality experimental educational research studies. Even if these obstacles are overcome, there remains the fundamental problem of a small sample size of learners in any one program. By facilitating multi-center

experimental studies, educators will be able to undertake rigorous research. It is these types of studies that will allow family physician educators to answer causal research questions.

Ultimately, the hope is that through the availability of this initiative to all teaching and research faculty, the quantity and quality of scholarly work generated by faculty and residents will increase regardless of their prior research experience. More information about CERA and the application process can be found at <http://www.stfm.org/initiatives/cera.cfm>.

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References

1. Young RA, Dehaven MJ, Passmore C, Baumer JG. Research participation, protected time, and research output by family physicians in family medicine residencies. *Fam Med*. 2006;38(5):341-348.
2. Young RA, DeHaven MJ, Passmore C, Baumer JG, Smith KV. Research funding and mentoring in family medicine residencies. *Fam Med*. 2007;39(6):410-418.
3. Hueston WJ, Mainous AG III. Family medicine research in the community setting: what can we learn from successful researchers? *J Fam Pract*. 1996;43(2):171-176.
4. Pathman DE, Viera AJ, Newton WP. Research published in 2003 by U.S. family medicine authors. *J Am Board Fam Med*. 2008;21(1):6-16.
5. Culpepper L, Franks P. Family medicine research. Status at the end of the first decade. *JAMA*. 1983;249(1):63-68.
6. Dickinson WP. The imperative for residency innovation. *Fam Med*. 2011;43(4):283-285.



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RESEARCH DEVELOPMENT STORIES FROM 7 DEPARTMENTS OF FAMILY MEDICINE: 7 LESSONS FOR ALL DEPARTMENTS

The challenges to development of research capacity in departments of family medicine have been documented.¹ ADFM strives to be a learning community, where members share their challenges, opportunities, successes, and disappointments. Seven stories of family medicine departments from Boston University, Brown, Jefferson, Kansas, Minnesota, Oregon, and Wake Forest were featured at a recent annual ADFM Winter

Meeting. In aggregate, these departments saw their number of funded investigator FTEs increase five-fold and research awards increase eight-fold. The areas of emphasis were varied and included prevention, chronic disease management, and access to care, and employed epidemiology studies, implementation studies, and clinical trials. These 7 stories of success and the discussions yielded important lessons.

1. *Chair leadership and vision* was critical to research growth and success. The vision was influenced by the assessment of local strengths, weaknesses and opportunities for research. Planning usually included identification of who might serve as potential partners in building a research enterprise and chairs supported these partnerships. The stories illustrated that there are many possible pathways to success, and that partnerships can be created within the university, the surrounding community, regional health systems, state legislatures, and even international institutions. Additionally, some considered research as opportunistic and thought chairs should guide researchers to look at the horizon of where potential research funding opportunities might hide.

2. With visionary leadership, *chairs must invest in research*. How did these chairs invest? First, they invested in people. One noted that you should not underestimate the costs to become successful in research— it takes \$300,000 or more to get a junior investigator off the ground, \$1 million to attract a mid-level investigator, and several million to attract a senior investigator. Chairs' investments in researchers were linked to outcomes and productivity measures, especially including grant funding support. Chairs invested in more faculty time for young investigators to develop and noted that devoting at least 60% time or more to research was needed to develop sustained funding.

3. *Recruitment and retention of researchers is a challenge*. Two chairs invested in research fellowships but all agreed that this was not essential. Given the relative dearth of investigators in family medicine, "growing your own" is often necessary, but having a fellowship program isn't the only way to do this, and fellows may leave following their training. With the scarcity of Title VII funds for establishing research programs, chairs looked to K awards from the National Institutes of Health to fund infrastructure and junior investigators. Even so, a significant portion of K awardees will not have a sustained research career.

4. *Chairs often invested in teams of investigators* to create research programs rather than isolated individuals. Many departments recognized the value of PhD investigators on the team—they don't have competing clinical demands and usually have much deeper training in research methods. Although many research-

intensive departments succeed with a relatively narrow research focus, there are several examples of those that also succeed with a group of talented investigators that are working in disparate areas, but who derive regular intellectual stimulation from their proximity and relationship with their department peers.

5. *Chairs invested in physical space* devoted to the research team, and sought to cluster investigators. Establishing a culture conducive to investigation was important to chairs and the proximity of researchers to clinicians was articulated as being important to family medicine.

6. *Chairs invested in essential infrastructure to support the cost of doing research business*. In particular, they invested in grants management and internal auditing (for finance and fraud). This may be provided by the home university, or may be internal to the department if the operations are large enough.

7. *Chairs actively encouraged and supported networking*. The practical power of networking was apparent in all 7 stories, with benefits for both K awardees and senior investigators. The North American Primary Care Research Group has created and sustained networking for primary care investigators since the 1970s, and family medicine investigators are now creating partnerships in content area focused meetings, as well. Although not a venue for the presentation of original work, ADFM will continue to play a key role in helping chairs, chairs to be, and department administrators learn from one another and thereby create and sustain research that will advance our discipline and practice.

Research and the creation of new knowledge to guide practice and encourage innovation is critical to our discipline and it is the role of all family medicine organizations to sustain and advance investigators and investigations. The lessons above may provide a direction for such efforts.

This *Annals* Commentary was produced by the Chair and Vice Chair of the ADFM Research Development Committee with review by the ADFM Executive Committee.

*Anton Kuzel, MD, Paul James, MD, and
the Association of Departments of Family Medicine (ADFM)*

Reference

1. James P, Davis A, Borkan J, and ADFM. The challenge to build research capacity in family medicine: is our discipline ready? *Ann Fam Med*. 2010;8(4):371-373.