



# ROBERT GRAHAM CENTER

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JOHNSON PHIL DILLER JOEL SHIELDS BEN MILLER BRAD RICHARDS HOWARD  
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ERICA BRODE CHRIS VAN WEEL SARAH SWEENEY MARK CARROZZA BENJAMIN  
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CHENELISE MEYERS BLAKE FAGAN ROSSAN CHEN AMANDA BROWNLOW TATE HINKLE  
JACOB CROTHERS MARK LIN NOAH KOJIMA PHILIP ESKEW SUSAN LIN LIZ BROWN  
GERALD BANKS DJINGE LINDSAY NGAIRE KEARSE YOSHI LAING ERIC CLARKSON  
SHANNON BOLON SEAN LUCAN SEEMA MODI EDDIE TURNER RUTH MCDONALD PAUL  
GRINZI KAREN WILDMAN JESSICA MCINTYRE REBECCA ETZ LENNY LESSER SARAH

LARRY A. GREEN VISITING SCHOLAR COMPENDIUM  
2007-2014

## TABLE OF CONTENTS

|                       |            |
|-----------------------|------------|
| LARRY A. GREEN.....   | PAGE 3     |
| FORWARD.....          | PAGE 4     |
| PISACANO REMARKS..... | PAGE 5     |
| 2007 SCHOLARS.....    | PAGE 6-12  |
| 2008 SCHOLARS.....    | PAGE 13-21 |
| 2009 SCHOLARS.....    | PAGE 22-27 |
| 2010 SCHOLARS.....    | PAGE 28-35 |
| 2011 SCHOLARS.....    | PAGE 36-41 |
| 2012 SCHOLARS.....    | PAGE 42-45 |
| 2013 SCHOLARS.....    | PAGE 46-52 |
| 2014 SCHOLARS.....    | PAGE 54-57 |



Larry A. Green

## Forward

As the Graham Center celebrates its 15<sup>th</sup> year and we reflect on its impact, little is more gratifying than the Larry A. Green Visiting Scholars program. The program fulfills a foundational ambition articulated by founding Director and program namesake, Dr. Larry Green, to “seed the discipline” of family medicine and primary care with people passionate about conducting research and using evidence to influence policy. Larry’s legacy is a gift to our Center, having become a font of energy, ideas, and productivity for the Center, and for primary care writ large.

The program, as designed, is a tailored, mentored month-long experience for research, writing, and experiential learning aligned with themes of the Center and steeped in the Washington, DC policy arena. In its 15 years, the Visiting Scholars program has hosted over 150 scholars, ranging from students, residents, graduate students, to senior faculty from a variety of primary care disciplines and the social sciences. Scholars are critical to our productivity and impact – without them, many of our one-pagers, peer-reviewed publications, monographs, and public presentations would never happen. The program has also been a source of many new ideas from distant shores, engaging participants from nations around the world. The current and past Directors of the Center both first engaged via the scholars program, as have many of the Centers most important ongoing collaborators.

The program increasingly leveraged or been leveraged by many other human capital and training programs – such as Pisacano Scholars, Robert Wood Johnson Clinical Scholars and National Research Service Awardees, an invaluable synergy and part of longitudinal leadership development critical to the long-term fate of primary care in the United States. Take a look at the leadership core and working committees of most any national primary care movement – such as the recently launched 5 year endeavor “Family Medicine for America’s Health” - and you’re likely to find one, two and possibly many alumni of the Larry A. Green Visiting Scholars program. It also would not exist without support, and we are extremely grateful to the Pisacano Leadership Foundation for its partnership and vision in allowing this program to continue when lean finances threatened its existence.

The value of the program is reflected in the faces, work, and words of our scholars. Through this Compendium we hope to provide a profile of the professional and personal importance of the program, and to celebrate its impact on both participants and the evidence they’ve created in support of effective policymaking. Our success in the years ahead, and a disproportionate component of our legacy will depend on the individuals featured herein, and those who will follow in their footsteps.



# PISACANO LEADERSHIP FOUNDATION

The Pisacano Leadership Foundation (PLF) works to advance the specialty of family medicine by providing professional and financial assistance to accomplished individuals who aspire to achieve excellence in the specialty of family medicine. The PLF was established in 1991 as a lasting tribute to the founder and first executive director of the American Board of Family Medicine, Nicholas J. Pisacano, MD. In honor of Dr. Pisacano, the PLF created the Pisacano Scholars program, designed to identify and foster future leaders of family medicine. By aiding medical students and young physicians who demonstrate the highest levels of scholarship, leadership, character, interpersonal skills, and community service, the Foundation promotes the professional development of these leaders in the most comprehensive primary care specialty, leaders who can then make relevant contributions to family medicine for generations to come.

The Pisacano Leadership Foundation recognizes the importance of the Larry A. Green Visiting Scholars program at the Graham Center. As a contributor to the development of future leaders in family medicine, the PLF enthusiastically supports the mission of the Larry A. Green Visiting Scholars program, which conducts significant research that will influence health policy. Numerous Pisacano Scholars have spent time at the Graham Center conducting convincing health policy research. These young leaders, now moving into academic health centers, public health organizations, and urban and rural primary care practices, will continue to have a salubrious impact on the families for whom they care and the colleagues with whom they work.

On behalf of the Board of Directors of the Pisacano Leadership Foundation, we celebrate the work of the Larry A. Green Visiting Scholars. As we move forward together, we hope to continue to advocate for the values of family medicine and demonstrate the benefits of primary care. Most importantly, we hope to favorably impact and improve the health of all Americans.

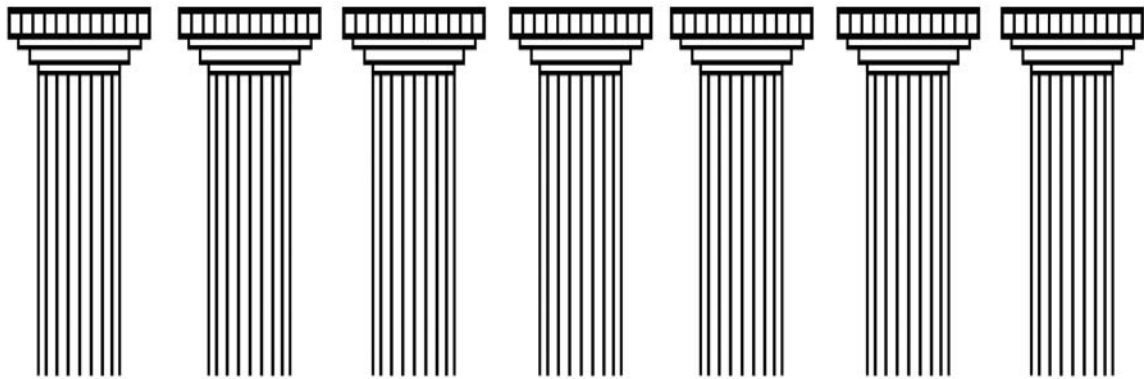
James C. Puffer, MD

President

Robert J. Cattoi

Executive Director

# PISACANO LEADERSHIP FOUNDATION



*The Philanthropic Foundation of the American Board of Family Medicine, Inc.*



# 2007 SCHOLARS

# SCHOLARS



## **Lindsay, Djinge**

Factors influencing minority retention in medical school and beyond  
George Washington University School of Medicine



## **Kerse, Ngaire**

Disability and primary care, Geriatrics  
University of Auckland  
New Zealand



## **Laing, Yoshio**

Prospects for primary care payment reform  
University of California, San Francisco



## **Clarkson, Eric**

Medical Home  
Kansas City University of Medicine



## **McDevitt (Bolon), Shannon**

Research training in fellowships available to Family physicians  
University of Pittsburgh



## **Lucan, Sean**

Perceptions of family medicine at NIH  
University of Pennsylvania



## **Modi, Seema**

Elderly populations in the medical home.  
East Carolina University



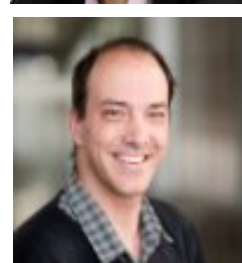
## **Turner, Eddie**

Diversity in medical home  
Baylor University



## **McDonald, Ruth**

Financial incentives for quality in primary care  
University of Manchester  
United Kingdom



## **Grinzi, Paul**

Health landscape: lessons for Australia  
University of Melbourne  
Australia

Photo Not Available



## **Wildman, Karen**

Value of Primary Care  
University of Wyoming  
Family Medicine



## EXAMPLES OF SCHOLAR PUBLICATIONS

### **Will Medical School Expansion Help Diversify the Physician Workforce?**

**Lindsay D,** Bazemore AW, Bowman R, Petterson S, Green LA, Phillips RL. *Am Fam Physician*. 2007 Jul 1;76(1):38.

The Council on Graduate Medical Education (COGME) asserts that “the racial/ethnic composition of the physician population should reflect the overall population's diversity.”<sup>1</sup> Blacks, Hispanics, and Native Americans make up 26 percent of the U.S. population, but only 6 percent of practicing physicians come from these underrepresented minorities.<sup>2</sup> Underrepresented minorities experience worse health status in many dimensions compared with the white population, and COGME states that: “Increasing the percentage of minorities in the medical profession is vital as a means of improving access to care and health status of these vulnerable and underserved populations.”<sup>3</sup> Underrepresented minority medical graduates are more likely to become primary care physicians<sup>4</sup> and to care for minorities and other underserved people. Since the end of the last allopathic medical school expansion (1980), the percentage of U.S. medical graduates who are Asian American has risen from almost two times to almost five times the percentage of Asian Americans in the U.S. population. The percentage of under-represented minority medical graduates has remained at about one half that of underrepresented minorities in the U.S. population

### **Primary care's eroding earnings: Is Congress concerned?**

**Brian Yoshio Laing, MD,** and Thomas Bodenheimer, *The Journal of family practice* 10/2008; 57(9):578-83.

Despite increasing data demonstrating the positive impact primary care has on quality of care and costs, our specialty faces uncertainty. Its popularity among medical students is declining, and the income gap is growing between primary care and other specialties. Congress has the power to intervene in this impending crisis. If we want to influence lawmakers' actions, we need to know how they are thinking about these issues.

Using a set of questions covering several physician payment topics, we interviewed 14 congressional staff aides (5 aides on Medicare-oversight committees, 9 general staff aides) and one representative from each of 3 governmental agencies: the Medicare Payment Advisory Commission, Congressional Budget Office, and Government Accountability Office.

Interviewees revealed that issues in primary care are not high on the congressional agenda, and that Medicare's Sustainable Growth Rate (SGR) is the physician-payment issue on the minds of congressional staff members.

Attempts to solve primary care's reimbursement difficulties should be tied to SGR reform.

**Building the Research Culture of Family Medicine With Fellowship Training.** Shannon K. Bolon; Robert L. Phillips Jr *Fam Med*. 2010 Jul-Aug;42(7):481-7.

**BACKGROUND AND OBJECTIVES:** The future of family medicine is closely tied to the strength of family medicine research. Physicians with fellowship training have been shown to be more productive researchers than those without fellowship training. This study's objectives are to (1) identify fellowship programs available to family physi-

## EXAMPLES OF SCHOLAR PUBLICATIONS

cians, (2) explore how family medicine fellows are taught research skills, and (3) identify obstacles to enhancing research training in fellowships.

**METHODS:** Fellowship programs available to family physicians were identified by Internet searches and confirmed by telephone or e-mail. Directors of identified fellowships received a 33-item survey exploring research training provided by their program. Descriptive statistics were used to evaluate the quantitative data. Survey comments were analyzed qualitatively to identify themes.

**RESULTS:** We confirmed that 247 of 328 identified research fellowships are available to family physicians. Survey response rate from those 247 fellowships was 65%. Fellowships with and without a research focus are providing research training. They are threatened, however, by weak research infrastructure, inadequate funding, and attitudinal biases against family medicine research.

**CONCLUSIONS:** There are many fellowship and research training opportunities for family physicians. But in many programs, research training is tenuous, and support for researchers is low. We recommend expanding research advocacy efforts within family medicine, Congress, and funding institutions.

### **Off the Roadmap? Family Medicine's Grant Funding and Committee Representation at NIH**

Sean C. Lucan, MD, MPH, Robert L. Phillips, Jr, MD, MSPH, and Andrew W. Bazemore, MD, MPH *Ann Fam Med.* 2008 Nov-Dec;6(6):534-42.

**PURPOSE:** Family medicine is challenged to develop its own research infrastructure and to inform and contribute to a national translational-research

agenda. Toward these ends, understanding family medicine's engagement with the National Institutes of Health (NIH) is important.

**METHODS:** We descriptively analyzed NIH grants to family medicine from 2002 through 2006 and the current NIH advisory committee memberships.

**RESULTS:** Grants (and dollars) awarded to departments of family medicine increased from 89 (\$25.6 million) in 2002, to 154 (\$44.6 million) in 2006. These values represented only 0.20% (0.15% for dollars) and 0.33% (0.22% for dollars), respectively, of total NIH awards. Nearly 75% of family medicine grants came from just 6 of NIH's grant-funding 24 institutes and centers. Although having disproportionately fewer grant continuations (62% vs. 72%) and R awards (68% vs. 74%)—particularly R01 awards (53% vs. 84%)—relative to NIH grantees overall, family medicine earned proportionately more new (28% vs. 21%) and K awards (25% vs. 9%) and had more physician principal investigators (52% vs. 15%). Ten of the nation's 132 departments of family medicine (7.6%) earned almost 50% of all family medicine awards. Representatives from family medicine were on 6.4% of NIH advisory committees (0.38% of all members); family physicians were on 2.7% (0.16% of members).

**CONCLUSIONS:** Departments of family medicine, and family physicians in particular, receive a miniscule proportion of NIH grant funding and have correspondingly minimal representation on standing NIH advisory committees. Family medicine's engagement at the NIH remains near well-documented historic lows, undermining family medicine's potential for translating medical knowledge into community practice, and advancing knowledge to improve health care and health for the US population as a whole.

# EXAMPLES OF SCHOLAR PUBLICATIONS

## **Will patients find diversity in the medical**

**home? Turner EJ, Bazemore AW, Phillips Jr RL, Green LA.** Will patients find diversity in the medical home? *Am Fam Physician.* 2008 Jul 15;78(2):183.

Mexican Americans and blacks experience disparities in health outcomes relative to white populations. During the past five to 10 years, fewer blacks and Mexican Americans are going to medical school and entering primary care professions. To assure the availability of a patient-centered medical home for all Americans, policy makers must work to support a culturally competent and diverse primary care workforce.

## **GIS and General Practice: Where are we going and when will we get there?**

**Dr. Paul Grinzi.** Australian Primary Health Care Research Institute 2008

Visiting Fellowship Program, spent six weeks with the Robert Graham Center in 2007. Dr. Grinzi investigating U.S. primary care workforce studies and their dissemination, and specifically the use of Geographic Information Systems (GIS) to inform workforce dialogue. APHCRI is an initiative of the Australian Government, established in 2003 as part of the Primary Health Care Research, Evaluation and Development (PHC RED) strategy. The mission of APHCRI is to "Provide national leadership in improving the quality and effectiveness of primary health care through the conduct of high quality priority-driven research and the support and promotion of best practice. It focuses on important sectorial questions relating to the organization, financing, delivery and performance of primary health care, including its interaction with public

health and the secondary and tertiary health care sectors. "This report will summarize the current state of GIS in health, compare the primary care/general practice workforces of the two countries and focus on a new tool, HealthLandscape, which may assist us in navigating the health systems in which we live, so that we can understand and therefore plan them in an enhanced manner. While this report will touch on other areas of health in which GIS can be utilized (such as public health, health access etc.), the primary focus for the examples given will be concerning medical workforce.

## **Greater Family Medicine Presence at NIH Could Improve Research Relevance and Reach**

**Sean C. Lucan, MD, MPH, MS; Andrew W. Bazemore, MD, MPH; Robert L. Phillips JR., MD, MSPH; Imam Xierali, PhD; Stephen Petterson, PhD; and Bridget Teevan, MS** *Am Fam Physician.* 2010 May 15;81(10):1213.

The NIH, the world's leading biomedical research enterprise, advances new areas of research under the guidance of its advisory committees, which provide peer review, research oversight, and advice on research opportunities. These committees shape how the NIH directs its funding.

Family medicine has had little role on NIH advisory committees. In 2007, family medicine represented only 21 (0.4 percent) of all 5,464 committee members (see accompanying figure). Only 19 (6.4 percent) of the NIH's 295 standing committees had members from departments of family medicine that year. Three fourths of NIH institutes and centers had no family medicine input at all.

Lack of family medicine involvement is a missed

## EXAMPLES OF SCHOLAR PUBLICATIONS

opportunity for the NIH. Family medicine—the predominant provider of primary care in the United States—can offer important insights into real-world patient care. Family medicine practices, where undifferentiated symptoms and conditions first present, are a source of new questions for researchers to explore. Additionally, family medicine conducts a variety of community and practice-based research that can aid in the translation of basic science into clinical practice. Making research more relevant to patient care, proposing clinically relevant research questions, and providing perspective on translation and dissemination are some of the reasons family medicine should participate more on NIH advisory committees.

Although family medicine researchers could join NIH advisory committees as scientific members (i.e., career investigators with established records of research success), family physicians could also serve on committees in public seats (i.e., as nonresearchers having active interest and expertise). Public seats must comprise one third of all seats on certain NIH advisory committees by law, and self nomination makes public membership possible. More family medicine involvement in scientific and public seats could improve the relevance and reach of NIH research, and thereby improve health for more patients.

### **Family Medicine, the NIH, and the Medical Research Roadmap: Perspectives From Inside the NIH**

**Sean C. Lucan, MD, MPH;** Frances K. Barg, PhD, MEd; Andrew W. Bazemore, MD, MPH; Robert L. Phillips, Jr, MD, MSPH(Fam Med 2009;41(3):188-96.)

Background and Objectives: Family medicine has

had little engagement with the National Institutes of Health (NIH), and it is unclear what NIH officials think about this. Methods: Purposive sampling identified 13 key informants at NIH for open-ended, semi-structured interviews. Evaluation was by content analysis. Results: NIH officials expressed the perception that family physicians have strong relationships with patients and communities and focus on interdisciplinary collaboration but that they do limited research and have weak research infrastructure. They also indicated that NIH has repackaged its stated focus, to include areas of research that might be applicable to family medicine, but whether this represents real change is questionable; NIH still emphasizes basic science and exclusionary trials. While NIH officials suggested that family physicians still have no obvious NIH home, they also suggest that family physicians are well-poised to recruit patients and inform questions, if not lead research. Family physicians have opportunity with Clinical and Translational Science Awards (CTSAs) but need areas of expertise and additional formal research training to succeed with greater research participation.

Conclusions: NIH key informants generally appreciated family medicine clinically but viewed family medicine research as underdeveloped. Some identified opportunities for family medicine to lead, particularly CTSAs. Greater self-advocacy, research training, and developing areas of expertise may improve family medicine's engagement with NIH.



# 2008 SCHOLARS



# 2008 SCHOLARS

# SCHOLARS



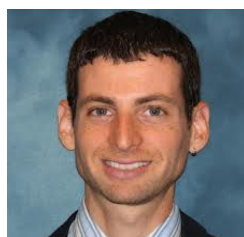
**McIntyre, Jessica**

Healthlandscape  
Georgetown University



**Etz, Rebecca**

Universal coverage in NJ ;  
Anthropology and quality  
Robert Wood Johnson Medical  
School



**Lesser, Lenny**

Obesity and primary care  
Tufts University



**Lesko, Sarah**

Medicare Access; Practicing MPH  
Seattle University



**Chatterjee, Sharmilla**

Access to Care  
Veterans Admission — Bedford



**O'Donovan, Eleni**

Accountable care organizations  
Oregon Health & Science University

Photo Not Available



**Harrison, Bridget**

Title VII's decline: Shrinking investment in the primary care training pipeline  
UT Southwestern Medical Center



**Grumbach, Kevin**

Primary care cooperative extension service  
University of California, San Francisco

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**Lee, Rachel**

International primary care needs  
University of Melbourne  
Australia



**Hughes, Lauren**

Training needs of migrant health centers  
University of Washington



## EXAMPLES OF SCHOLAR PUBLICATIONS

### **Transforming Community Health and Primary Care Education Using Clinical and Administrative Data and Geographic Information Systems.**

Seiji Hayashi, Andrew Bazemore & **Jessica McIntyre**  
Journal of Map & Geography Libraries: Advances in Geospatial Information, Collections & Archives Volume 7, Issue 1, pages 61-70 2011 Special Issue: Geographic Opportunities in Medicine

Community-oriented primary care (COPC), a common model used for integrating the principles of primary care and public health, has been taught in family medicine residency programs to create community-responsive providers. As the initial step in a comprehensive COPC curriculum for a family medicine residency program, we used GIS maps, graphs, and tables to introduce new interns to the community served by the residency clinic. A fourteen-question pre/post test showed that interns' knowledge and understanding of the community improvement overall were deficient. Using practice-based administrative data combined with population-based data can efficiently and effectively improve interns' knowledge of the communities they serve.

### **Title VII, Section 747 is a source of federal funding intended to strengthen the primary care workforce.**

**Bridget Harrison, MD MPH;** Andrew Bazemore, MD MPH; Martey S. Dodoo, PhD; Bridget Teevan, MS; Hope R. Wittenberg, MA; and Robert L. Phillips, Jr. MD MSPH.

Title VII, Section 747 of the Public Health Services Act is intended to increase the quality, quantity,

and diversity of the primary care workforce, with special emphasis on increasing capacity to care for the underserved. It supports the development of innovative primary care curricula and programming at the medical school, residency, fellowship, and departmental levels.

The nation's physician training pipeline is steadily producing fewer primary care physicians. The number of graduating U.S. allopathic medical students choosing primary care declined steadily over the past decade, and the proportion of minorities within this workforce remains low.

Title VII is associated with increased primary care physician production and practice in underserved areas.<sup>3,4</sup> Despite this, funding has declined since 1978.

### **Impact of Title VII Training Programs on Community Health Center Staffing and National Health Service Corps Participation**

Diane R. Rittenhouse, MD, MPH, George E. Fryer, Jr, PhD, [...], and **Kevin Grumbach, MD** Ann Fam Med. 2008 Sep-Oct;6(5):397-405.

**PURPOSE:** Community health centers (CHCs) are a critical component of the health care safety net. President Bush's recent effort to expand CHC capacity coincides with difficulty recruiting primary care physicians and substantial cuts in federal grant programs designed to prepare and motivate physicians to practice in underserved settings. This article examines the association between physicians' attendance in training programs funded by Health Resources and Services Administration (HRSA) Title VII Section 747 Primary Care Training Grants and 2 outcome variables: work in a CHC and participation in the National Health Ser-



## EXAMPLES OF SCHOLAR PUBLICATIONS

vice Corps Loan Repayment Program (NHSC LRP).

**METHODS:** We linked the 2004 American Medical Association Physician Master-file to HRSA Title VII grants files, Medicare claims data, and data from the NHSC. We then conducted retrospective analyses to compare the proportions of physicians working in CHCs among physicians who either had or had not attended Title VII-funded medical schools or residency programs and to determine the association between having attended Title VII-funded residency programs and subsequent NHSC LRP participation.

**RESULTS:** Three percent (5,934) of physicians who had attended Title VII-funded medical schools worked in CHCs in 2001–2003, compared with 1.9% of physicians who attended medical schools without Title VII funding ( $P<.001$ ). We found a similar association between Title VII funding during residency and subsequent work in CHCs. These associations remained significant ( $P<.001$ ) in logistic regression models controlling for NHSC participation, public vs. private medical school, residency completion date, and physician sex. A strong association was also found between attending Title VII-funded residency programs and participation in the NHSC LRP, controlling for year completed training, physician sex, and private vs. public medical school.

**CONCLUSIONS:** Continued federal support of Title VII training grant programs is consistent with federal efforts to increase participation in the NHSC and improve access to quality health care for underserved populations through expanded CHC capacity.

### **Defining and Targeting Areas of Primary Care Need A Five-Country Comparison**

**Dr Rachel Lee.** Australia Primary Health Care Research Institute

Medical workforce shortage and maldistribution are critical factors in healthcare access. Many countries have complex regulatory and incentive frameworks to address these factors yet no single country seems to have ‘got it right’. “Virtually all OECD countries suffer from a geographical maldistribution of their health workforce between rural, remote or poor areas and urban, central and rich localities” [1]p43. In primary care workforce shortages are further exacerbated by dwindling trainee numbers in general practice.

Given the importance of these redistributive policies they warrant the further scrutiny provided in this report. The universality of these issues naturally accommodates a comparative approach – in this case looking at Australia, Canada, New Zealand, the United Kingdom and the United States of America. These countries face different workforce challenges –in broad terms, in the USA and UK the inner urban slums have the scarcest workforce whereas in Australia and Canada the rural and remote areas have been the main focus for workforce policy rather than socioeconomic drivers. New Zealand sits in the middle with policy that addresses both rural and socio-economic deficits. The United States of America is the only study country to consistently and explicitly define areas of primary care workforce shortage by direct reference to workforce data. Some US definitions also incorporate simple measures of poverty and deprivation. Although not comprehensive, these do encapsulate key socioeconomic measures. However,

## EXAMPLES OF SCHOLAR PUBLICATIONS

these definitions have not been rigorously explored as the USA has a relatively passive approach to workforce planning. Elegant shortage definitions are coupled with comparatively small workforce incentives and minimal regulatory requirements for family physicians to work in these defined areas. The United Kingdom and New Zealand eschew strict workforce shortage definitions. Rather they use the overall payment mechanisms for general practitioners to reflect their workforce priorities. They both include higher payments for GPs working in socioeconomically deprived areas and some cost offsets for rural areas. Australia has the most complex (and perhaps most generous) approach to workforce incentives with increasing rewards for more remote work. It also uses the strictest regulatory approach – requiring service in areas of shortage by both international medical graduates and general practice trainees. However, Australia bases these policies almost entirely on geography alone with no consideration of existing workforce, population need or socio-economic factors. Canada's varied provincial and territory-determined responses are generally most similar to Australia's approach but with innovative blended and salaried payment strategies for remote doctors. All five countries have a range of policy incentives and interventions along the entire course of the general practice production pathway. These can be broadly considered incentives, regulatory requirements or 'other' approaches. Examples include providing debt repayment or scholarship for agreed service in rural or disadvantaged areas, requiring trainees to undertake posts in rural areas and increasing student exposure to rural, disadvantaged and primary care medicine. Although specific policies differ, the overall approach is simi-

lar; hence comparative analysis reveals minor innovations rather than significant lessons. Evidence for the effectiveness of any particular approach is generally lacking. However, a comprehensive strategy to recruit students with a keen interest in primary care coupled with opportunities for experiences, mentoring and support during their training does show promise. There was also a clear temporal relationship in the UK between its one-off considerable increase in remuneration and flexibility for general practitioners and a subsequent increase in applications for training. This serves as a stark reminder that over-arching 'pull' factors such as pay, status and academic standing differentials between general practice and other specialties may easily overwhelm minor tinkering and incentives along the training pathway.

### **A re-emerging political space for linking person and community through primary health care.**

Sweeney SA, Bazemore A, Phillips RL Jr, Etz RS, Stange KC. *Am J Public Health*. 2012 Jun;102 Suppl 3:S336-41.

**OBJECTIVES:** We sought to understand how national policy key informants perceive the value and changing role of primary care in the context of emerging political opportunities.

**METHODS:** We conducted 13 semi structured interviews in May 2011 with leaders of federal agencies, think tanks, nonprofits, and quality standard-defining organizations with influence over health care reform policies and implementation. We recorded the interviews and used an editing and immersion-crystallization analysis approach to identify themes.

## EXAMPLES OF SCHOLAR PUBLICATIONS

**RESULTS:** We identified 4 themes: (1) affirmation of primary care as the foundation of a more effective health care system, (2) the patient-centered medical home as a transitional step to foster practice innovation and payment reform, (3) the urgent need for an increased focus on community and population health in primary care, and (4) the ongoing need for advocacy and research efforts to keep primary care on public and policy agendas. **CONCLUSIONS:** Current efforts to reform primary care are only intermediate steps toward a system with a greater focus on community and population health. Transformed and policy-enabled primary care is an essential link between personalized care and population health.

### **Comparison between US Preventive Services Task Force recommendations and Medicare coverage.**

**Lesser LI**, Krist AH, Kamerow DB, Bazemore AW. *Ann Fam Med*. 2011 Jan-Feb;9(1):44-9.

**PURPOSE:** The US Preventive Services Task Force (USPSTF) is authorized by the US government to review and disseminate the scientific evidence for clinical preventive services. The purpose of this study was to evaluate the alignment of Medicare preventive services coverage with the recommendations of the USPSTF before implementation of health reform.

**METHODS:** We recorded all Medicare coverage for preventive services as listed in the Medicare preventive services guide of 2007 (including the 2009 update) for all recommended (A-or B-rated) USPSTF and not recommended (D-rated) guidelines for preventive screening and counseling in adults aged 65 years and older. We analyzed 2

components of preventive care: preventive coordination (risk assessment, patient motivation, and arranging of preventive service) and the preventive service itself. The main outcome measure was the percentage of agreement between USPSTF recommendations and Medicare coverage.

**RESULTS:** The USPSTF recommended 15 preventive interventions for adults aged 65 years and older. Although Medicare partially reimbursed 93% of recommended services, full reimbursement for the preventive coordination, as well as the service, was available for only 7% of these services. This partial coverage is available mostly as part of the Welcome to Medicare Visit. Further, the USPSTF recommended against 16 preventive services; Medicare reimbursed clinicians for 44% of these services.

**CONCLUSIONS:** Medicare coverage for preventive services needs to be reassessed, with special focus on preventive coordination. Continuing previous practices will likely promote both inadequate and excessive delivery of preventive services. The new health care reform law has the potential to improve the provision of preventive services to Medicare beneficiaries.

*"My time at the Graham Center taught me the rigor required to be a Family Medicine researcher, and also introduced me to the real-time intersection of policy and politics. I am forever grateful for the time the Graham Center staff invested in me and my projects. " - Sarah Lesko*

*"I have been fortunate to know and work with The Robert Graham Center team for over eight years. Through mentorship from colleagues at the Center, I have discovered what I want to pursue in my career --- using my clinical and research skills to advance primary care policy that makes meaningful differences in the lives of the underserved. I am beyond grateful for the Center and its mission , opportunities, and impact." - Lauren Hughes*

*"My short 4 weeks at the Graham Center were more productive than any other experience I have had. The connections I made through the Graham Center continue to benefit me as I progress in my career." - Lenny Lessor*



# 2009 SCHOLARS



# 2009 SCHOLARS

# SCHOLARS



**Grumbach, Kevin**

Primary care extension  
University of California, San Francisco



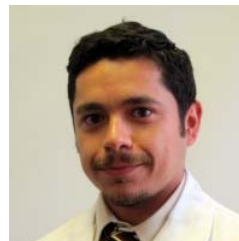
**Livingston, Cat**

Accountable care organizations  
Oregon Health & Science University



**Peterson, Lars**

Geriatrics and house calls  
Case Western University



**Frescas, Ruben**

Costs of graduate medical education  
Loyola University, Chicago



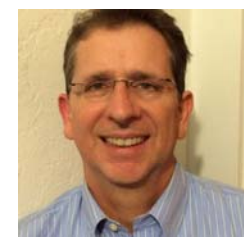
**Fine, Michael**

Health access  
Rhode Island Department of Health



**Wilder, Venis**

The case for primary care  
Harvard University



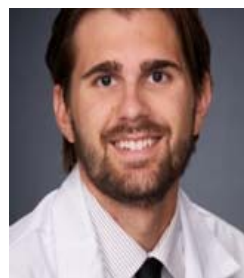
**Swain, Peter**

National health service corps  
Bayfront family medicine residency



**Butler, Danielle**

Social determination of health in health care planning  
University of Sydney, Australia



**Weida, Nick**

Graduate medical education  
Boston University

## EXAMPLES OF SCHOLAR PUBLICATIONS

### **Family physicians' present and future role in caring for the elderly.**

**Lars E. Peterson, MD, PhD;** Andrew W. Bazemore, MD, MPH; Robert L. Phillips Jr., MD, MSPH; Bridget Teevan, MS; Martey S. Dodoo, PhD; Imam Xierali, PhD; and Stephen M. Petterson, PhD Family physicians' present and future role in caring for older patients. *Am Fam Physician*. 2009 Nov 15;80(10):1072.

The population of patients older than 65 years is projected to increase substantially in the coming years, particularly in rural areas. Family physicians are essential providers of geriatric care, especially in rural areas, but need payment reform to improve their capacity to meet the needs of older patients.

The proportion of Americans who are 65 years and older is projected to increase from 12 percent in 2005 to 20 percent by 2030.<sup>1</sup> Growth will be even higher in rural areas, which already have more older residents.<sup>2</sup> Baby boomers may have more chronic disease and live longer than past generations.

A recent Institute of Medicine report called for improved geriatric competency of all health care professionals, better recruitment and retention of health professionals, and new models of care delivery. Some predict 36,000 geriatricians will be needed by 2030 to meet the needs of a growing population of older patients.

Analysis of U.S. Census and American Medical Association Master File data (see accompanying figure) revealed there are substantially more family physicians than general internists in all areas except the most urban, and more family physicians than geriatricians in all areas, especially in rural areas, which have a higher percentage of older per-

sons. For example, in the 670 most rural counties (rural-urban continuum code levels 8 and 9), older persons were more than 17 percent of the population, and there were 68 geriatricians compared with 1,394 family physicians in these frontier areas.

### **Does graduate medical education also follow green?**

**Weida NA,** Phillips RL Jr, Bazemore AW. Does graduate medical education also follow green? *Arch Intern Med*. 2010 Feb 22;170(4):389-90.

Teaching hospitals have favored higher revenue generating specialty training over primary care positions. Expansion of positions in the "R.O.A.D." disciplines (radiology, ophthalmology, anesthesia, and dermatology) and emergency medicine over the last 10 years parallels losses in family medicine, general pediatrics, and general internal medicine. General internal medicine positions increasingly serve as channels for revenue generating subspecialty programs, leaving fewer internal medicine positions dedicated to primary care. Policy makers hoping to realize the superior health outcomes and decreased costs associated with greater access to primary care may find this trend alarming. Our findings support the concern expressed by the COGME that instead of responding to policy aims to correct shortage in the primary care pipeline, hospitals are instead training to meet hospital goals.

### **Income disparities shape medical student specialty choice.**

**Venis Wilder, MD;** Martey S. Dodoo, PhD; Robert L. Phillips, Jr., MD, MSPH; Bridget Teevan, MS; Andrew W. Bazemore, MD, MPH; Stephen M. Petterson, PhD;



## EXAMPLES OF SCHOLAR PUBLICATIONS

and Imam Xierali, PhD Am Fam Physician. 2010 Sep 15;82(6):601.

Currently, a gap of more than \$135,000 separates the median annual subspecialist income from that of a primary care physician, yielding a \$3.5 million difference in expected income over a lifetime. These income disparities dissuade medical students from selecting primary care and should be addressed to ensure sufficient patient access to primary care. The income gap between primary care physicians and subspecialists has grown steadily since 1979.<sup>1</sup> At the extreme, nearly \$250,000 separated the median annual income of primary care physicians from the incomes of physicians in diagnostic radiology and orthopedic surgery in 2004. Over the past 30 years, the growth of this income gap reduced the odds of medical students choosing primary care or family medicine by nearly one half. It also reduced the odds of students working in a federally qualified health center or rural health center by 30 percent, and of practicing in a rural area by almost 20 percent. The resulting difference in expected income over the average physician career is impressive. Data from the Department of Labor Statistics and the Medical Group Management Association show that primary care physicians earn a cumulative average lifetime net income of nearly \$6.5 million compared with more than \$10 million for subspecialists.

Medical students who select non-primary care specialties stand to reap considerable financial benefits over those who choose primary care, despite the limited additional training time and expense involved in subspecializing. Even students who select business, law, and dentistry—careers with lower opportunity costs than medicine—can also

expect greater relative financial rewards; the lifetime return on investment for each was greater than for primary care in the 1990s, and likely remains as such. Policies reversing the growth of payment disparities could attract more students to primary care and secure access to an adequate primary care workforce.

*"The Graham Center helped me to create my first peer-reviewed publication as a medical student. The month-long experience was stimulating, informative, and impactful in how it helped me to recognize that my understanding of primary care on a population and research level was validated and practiced. I have continued to connect to the center utilizing the support of the people and resources as even a junior faculty physician today. The opportunity was invaluable to my career as a family medicine doctor." - Venis Wilder*

*"What I did not realize when I started at the Graham Center was that you never really leave the Graham Center. A one month crash course in public policy, research, and advocacy not only produced results during my time in D.C. but also created valuable connections with a network of health policy leaders. Even now, five years after my time in D.C., I continue to rely upon members of the Graham Center Community as I develop my career." - Nick Weida*

*"My time at the Graham Center allowed me to take a dedicated period from the traditional medical training to dig deeper at the larger policies that impact the health of a population. My time was also informed by the debates surrounding the Affordable Care Act, and to reflect deeper on what it means to be a clinician concerned about achieving equitable care for all. Understanding the potential impact of wider health system delivery inspired me to pursue a Master of Public Health degree at Johns Hopkins, which allowed me to find my influence and work with the World Health Organization on Universal Health Coverage. The staff and mentorship at the Graham Center gave me the skills and confidence to move forward in my career as a family physician advocating for larger health system changes on an international basis - not to mention, I continue to hold ties with staff even after a few years since my formal stint as a scholar." - Reuben Frecas*



# 2010 SCHOLARS



# 2010 SCHOLARS

# SCHOLARS



**Johnson, Nicole**

Scope of primary care  
Albert Einstein College of Medicine



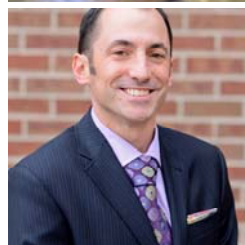
**Shields, Joel**

Electronic Health Records System  
American Academy of Family Physicians



**Richards, Brad**

International Medical Graduates  
Georgetown University



**Miller, Ben**

Mental health integration  
with primary care  
University of Colorado



**Rabinowitz, Howard**

Supply and retention of  
rural physicians  
Thomas Jefferson University



**Walker, Kara**

Social determinants of health  
University of California, Los Angeles



**Bragg, Elizabeth (Libbie)**

Geriatric workforce  
University of Cincinnati



**Warshaw, Gregg**

Geriatrics  
University of Cincinnati



**Dulin, Michael**

Using geographic information  
system to enhance community-based  
primary care  
Carolinas Medical Center



**Reddy, Anjani**

Social accountability  
University of California, Los Angeles



**Neuhausen, Kate**

Access to specialty services in  
community health centers  
University of California, San Francisco



**McLver, Lachlan**

Primary care and indigenous health  
James Cook University  
Australia

## EXAMPLES OF SCHOLAR PUBLICATIONS

### **What Services Do Family Physicians Provide in a Time of Primary Care Transition?**

Andrew W. Bazemore, MD, MPH, Stephen Petterson, PhD, **Nicole Johnson, MD**, Imam M. Xierali, PhD, Robert L. Phillips, MD, MSPH, Jason Rinaldo, PhD, James C. Puffer, MD and Larry A. Green, MD Received for publication

December 31, 2010. J Am Board Fam Med, November-December 2011 vol. 24 no. 6pp 635-636

The Future of Family Medicine Report envisioned a new model of practice “committed to providing the full basket of clinical services offered by Family Medicine.” In actuality, variation in that basket is considerable and may influence patients' access to care as much as supply and distribution of physicians does in the wake of health care reform.

The Institute of Medicine defines primary care as “...the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs.” The actual scope of a primary care provider, however, varies widely and has changed over time. Trained with perhaps the widest scope among primary care providers, family physicians' scope of practice is thought to be changing as well. When applying for Part III of Maintenance of Certification (cognitive examination), all family physicians must identify areas of practice on a mandatory (100% response rate) questionnaire included in the online application. We analyzed 3 years of responses (2006–2008) to assess what percentage of family physicians reported any service delivery across service type, all of which fall within the realm of family physician training. Specifically, we used data from a cohort applying for the Part III examination during the years 2006 to 2008 (n=26,355). Variation in services provided is con-

siderable, and less than 40% of family physicians reported offering any services in more than half of the areas of scope considered

To preserve access to services already deficient in rural and urban underserved areas, policymakers will need to consider not only workforce supply, distribution, and composition but also desirable scope of practice. Specifically, they will need to adapt policies that influence provider scope of practice to allow visions of comprehensive care within a patient-centered medical home for all Americans to be realized. These include, but are not limited to, provider payment, certification and credentialing, and undergraduate, graduate, and continuing education.

### **Better Integration of Mental Health Care Improves Depression Screening and Treatment in Primary Care.**

Robert L. Phillips JR, MD, MSPH; **Benjamin F. Miller**, PsyD; Stephen M. Peterson, PhD; and Bridget TeevaN, MS Am Fam Physician. 2011 Nov 1;84(9):980.

Most people with poor mental health will be diagnosed and treated in the primary care setting. Depression and anxiety disorders are the most common mental health conditions in primary care, often complicating other medical conditions and making them more expensive. Offering treatment for depression after screening can improve outcomes, but the U.S. Preventive Services Task Force recommends against screening for depression in primary care unless there are staff-assisted care supports in place to assure accurate diagnosis, effective treatment, and follow-up. This is in part a response to evidence that screening alone does not lead to improved outcomes in depression

## EXAMPLES OF SCHOLAR PUBLICATIONS

care. Staff-assisted supports such as on-site mental health providers and care managers can improve depression identification and treatment. Current health care policy makes it difficult for most primary care practices to integrate mental health staff because of insufficient reimbursement, mental health insurance carve-outs, and difficulty of supporting colocated mental health professionals, to name a few.

Analysis of National Ambulatory Medical Care Surveys from 2003 to 2006 reveals that despite the high prevalence of depression in primary care (10 to 12 percent), screening is extremely low at 2 to 4 percent (see accompanying figure). Primary care physicians can generally tell which patients do not have depression, but often miss those who do.

Current patterns of screening for depression may be evidence-based given that primary care typically lacks on-site mental health providers, but they are not consistent with making health care more patient-centered, efficient, or effective. Improving identification and treatment of depression in primary care is unlikely to change without better integration of mental health services. Payment and other policies that separate mental health from physical health should be changed to better accommodate care for depression in primary care.

### **Comprehensive Medical School Rural Programs Produce Rural Family Physicians**

**HOWARD K. RABINOWITZ, MD**, STEPHEN Peterson, PhD, James G. Boulger, PhD, Matthew L. Hunsaker, MD, Fred W. Markham, MD, James J. Diamond, PhD, Andrew Bazemore, MD, MPH, Robert L. Phillips JR, MD, MSPH Am Fam Physician. 2011 Dec 15;84(12):1350.

Health insurance expansion expected from the

Affordable Care Act is likely to exacerbate the long-standing and critical shortage of rural and primary care physicians over the next decade. Comprehensive medical school rural programs, from which most graduates ultimately enter primary care disciplines and serve rural areas, offer policy makers an interesting potential solution.

In an age of medical school expansion and experimentation, few schools offer programs that focus on addressing the growing shortage of primary care physicians in rural areas. One such group, the comprehensive medical school rural programs, typically offers preferential admission of students likely to practice primary care in rural areas, strong mentoring, and a required rural curriculum.

We used the American Medical Association Physician Masterfile to determine the current location and specialty of graduates of three rural programs from their inception until 2005. The programs were Jefferson Medical College's Physician Shortage Area Program, inception 1978; the University of Minnesota Medical School, Duluth, inception 1976; and the University of Illinois College of Medicine at Rockford's Rural Medical Education Program, inception 1997. Of 1,551 graduates from these three programs, 63.1% were practicing in a rural area in 2010 (according to the Rural Urban Density Typology 3), and 60.0% were practicing primary care (family medicine, general internal medicine, or general pediatrics), with most practicing family medicine (50.4%). Overall, 82.0% of graduates from the three rural programs were practicing either in a rural area or in primary care, and 41.1% did both. In addition, 61.6% were practicing in the state of their medical school. Ranges of outcomes for the rural programs were similar, with 45.0% to 76.4% of graduates practicing in a rural area, 58.7% to



## EXAMPLES OF SCHOLAR PUBLICATIONS

71.7% practicing primary care, and 76.2% to 89.6% in either a rural area or in primary care. Among graduates who did not go into primary care, 55% were practicing in a rural area.

Given that only one-third of U.S. medical school graduates typically choose primary care and that 11% practice in rural areas, these rural programs almost double the percentage of primary care graduates and increase rural physicians almost six fold. These findings suggest that expansion of comprehensive medical school rural programs may represent an effective option for increasing the supply of rural and primary care physicians.

### **Toward Defining and Measuring Social Accountability in Graduate Medical Education: A Stakeholder Study**

**Anjani T. Reddy, MD**, Sonia A. Lazreg, BA, Robert L. Phillips Jr, MD, MSPH, Andrew W. Bazemore, MD, MPH, Sean C. Lucan, MD, MPH, *MS Journal of Graduate Medical Education* September 2013, Vol. 5, No. 3, pp. 439-445.

**Background** Since 1965, Medicare has publically financed graduate medical education (GME) in the United States. Given public financing, various advisory groups have argued that GME should be more socially accountable. Several efforts are underway to develop accountability measures for GME that could be tied to Medicare payments, but it is not clear how to measure or even define social accountability.

**Objective** We explored how GME stakeholders perceive, define, and measure social accountability. **Methods** Through purposive and snowball sampling, we completed semi structured interviews with 18 GME stakeholders from GME training

sites, government agencies, and health care organizations. We analyzed interview field notes and audio recordings using a flexible, iterative, qualitative group process to identify themes.

**Results** Three themes emerged in regards to defining social accountability: (1) creating a diverse physician workforce to address regional needs and primary care and specialty shortages; (2) ensuring quality in training and care to best serve patients; and (3) providing service to surrounding communities and the general public. All but 1 stakeholder believed GME institutions have a responsibility to be socially accountable. Reported barriers to achieving social accountability included training time constraints, financial limitations, and institutional resistance. Suggestions for measuring social accountability included reviewing graduates' specialties and practice locations, evaluating curricular content, and reviewing program services to surrounding communities.

**Conclusions** Most stakeholders endorsed the concept of social accountability in GME, suggesting definitions and possible measures that could inform policy makers calls for increased accountability despite recognized barriers.

### **Integrating Community Health Centers Into Organized Delivery Systems Can Improve Access To Subspecialty Care.**

**Katherine Neuhausen**, Kevin Grumbach, Andrew Bazemore, and Robert L. Phillips *Health Aff (Millwood)*. 2012 Aug;31(8):1708-16.

The Affordable Care Act is funding the expansion of community health centers to increase access to primary care, but this approach will not ensure effective access to subspecialty services. To address



## EXAMPLES OF SCHOLAR PUBLICATIONS

this issue, we interviewed directors of twenty community health centers. Our analysis of their responses led us to identify six unique models of how community health centers access subspecialty care, which we called Tin Cup, Hospital Partnership, Buy Your Own Subspecialists, Telehealth, Teaching Community, and Integrated System. We determined that the Integrated System model appears to provide the most comprehensive and cohesive access to subspecialty care. Because Medicaid accountable care organizations encourage integrated delivery of care, they offer a promising policy solution to improve the integration of community health centers into "medical neighborhoods."

### **Primary Care, Behavioral Health, Provider Colocation, and Rurality**

**Benjamin F. Miller, PsyD,**

Stephen Petterson, PhD, Shandra M. Brown Levey, PhD, Jessica C. Payne-Murphy, MA, Miranda Moore, PhD and Andrew Bazemore, MD, MPHJ Am Board Fam Med. 2014 May-Jun;27(3):367-74.

**PURPOSE:** The purpose of this study was to characterize the proximity of primary care and behavioral health service delivery sites in the United States and factors influencing their colocation.

**METHODS:** We geocoded the practice addresses of primary care and behavioral health providers found in the Centers for Medicare & Medicaid Services' National Plan and Provider Enumeration System Downloadable File to report where colocation is occurring throughout the country.

**RESULTS:** The extent to which primary care physicians are collocated with behavioral health providers is strongly associated with rurality. Specifically,

40.2% of primary care physicians in urban areas are collocated with behavioral health providers compared with 22.8% in isolated rural areas and 26.5% in frontier areas. However, when controlling for number of primary care physicians at a location, the odds of colocation actually are greater for physicians in a frontier area than those in urban areas (odds ratio, 1.289;  $P < .01$ ).

**CONCLUSIONS:** Our findings offer new insights into the overlap of the behavioral health and primary care workforce, where opportunities for integration may be limited because of practice size and the proximity of providers, and where new possibilities for integration exist.

*"The Graham Center is a wonderful and valuable resource for family medicine, primary care, and the health care system. Personally, spending time at the Center was a great opportunity, and the staff was outstanding." - Howard Rabinowitz*

# 2011 SCHOLARS





# 2011 SCHOLARS

# SCHOLARS



**Dovey, Sue**

Research productivity of general practice academicians  
University of Otago,  
New Zealand



**Tong, Sebastian**

Medicare GME Dollars for Critical Access Hospitals  
Boston University



**Van Weel, Chris**

Lessons from the Dutch general practice database  
University Medical Centre, Nijmegen The Netherlands



**Sokol, Randi**

Medical school admission committees  
University California, Davis



**Sweeney, Sarah**

National stakeholders' perception of the role of and key challenges to primary care  
Case Western Reserve School of Medicine



**Cooke, Georga**

"Community competence"; Geography  
University of Queensland  
Australia



**Carrozza, Mark**

Social capital, access to care, and health status  
Health Foundation of Greater Cincinnati



**Harrison, Chris**

Identifying health care workforce issues, geographic areas of need and multimorbidity.  
University of Sydney, Australia



**Blagogee, Benjamin**

Social Determinants of Health  
Yale University



## EXAMPLES OF SCHOLAR PUBLICATIONS

### **A reemerging political space for linking person and community through primary health care**

**Sweeney SA**, Bazemore A, Phillips RL Jr, Etz RS, Stange KC. Am J Public Health. 2012 Jun;102 Suppl 3:S336-41.

We sought to understand how national policy key informants perceive the value and changing role of primary care in the context of emerging political opportunities.

**METHODS:** We conducted 13 semi-structured interviews in May 2011 with leaders of federal agencies, think tanks, nonprofits, and quality standard-defining organizations with influence over health care reform policies and implementation. We recorded the interviews and used an editing and immersion-crystallization analysis approach to identify themes.

**RESULTS:** We identified 4 themes: (1) affirmation of primary care as the foundation of a more effective health care system, (2) the patient-centered medical home as a transitional step to foster practice innovation and payment reform, (3) the urgent need for an increased focus on community and population health in primary care, and (4) the ongoing need for advocacy and research efforts to keep primary care on public and policy agendas.

**CONCLUSIONS:** Current efforts to reform primary care are only intermediate steps toward a system with a greater focus on community and population health. Transformed and policy-enabled primary care is an essential link between personalized care and population health.

### **The percentage of family physicians attending to women's gender-specific health needs is declining**

Xierali IM, Puffer JC, **Tong ST**, Bazemore AW, Green LA. J Am Board Fam Med. 2012 Jul;25(4):406-7.

As the largest and most widely distributed of primary care physicians, family physicians have an important role in providing women's health care, especially in rural and underserved areas. The proportion of family physicians who are attending to women is declining. Policy intervention may be needed to help family physicians maintain the comprehensiveness of care necessary to address the wide range of medical problems of women they encounter within their practices.

*"I have worked for nearly 30 years now in primary care research and without a doubt the 4 years I spent in the Robert Graham Center rank as the best 4 years of my career. There for the first time I saw how primary care policy research could really propel huge changes in the ways things were thought of and done in primary care. It was the most professionally productive time in my life because the environment was the most professionally enabling. I worked with a wonderfully supportive team of great human beings and was privileged to get to know some of the greatest young family physicians I have ever met. I became satisfied my medical future was in good hands. I moved on to academic careers in Australia, New Zealand, and the UK, but I still hold my time in the US closest to my heart. I am very grateful for the opportunity to spend time there." - Sue Dovey*

## QUOTES FROM FORMER SCHOLARS

*"My Graham Scholarship stands-out as a most memorable experience. An experience to fall back to at many occasions when discussing fact and fiction of how green the grass is of health systems at home or on the other side of the border. The richness of the intellectual exposures at the RGC and elsewhere in DC helped me to understand that it is not so much in the greenness of the grass but of how fertile the soil. My Scholarship helped in deepening my understanding that primary health care is the fertilizer, wherever on the globe.*

*Thank you very much for the hospitality and many congratulations with your 15th anniversary!" - Chris VanWeel*

*"I was inspired by the work of the Robert Graham Center and has sought to use lessons learnt from my trip in my work. Since returning to Australia I have continued to publish work on identifying health care workforce issues, geographic areas of need and multimorbidity. Recently I led the analysis of a major report (in conjunction with the National Health Performance Authority - Australia) examining the prevalence of chronic conditions, and comparing quality health measures in all local areas (Medicare Locals). This report is expected to be published on the 11th of December 2014" - Chris Harrison*

*"The time at the Graham Center under the mentorship of Drs. Bazemore and Phillips was indispensable. The resources and attention provided by the entire Graham Center team allowed me to focus on my research agenda to a degree that would have been simply impossible without this opportunity. The ideas generated during the fellowship still impact my work to this day."—Mark Carrozza*



*"My time at the Graham Center taught me many things; principle among them is the importance of following the data to help make the case for health policy. Without this firm grounding, most of my work would not have the impact it has had." - Ben Miller*



# 2012 SCHOLARS







# 2012 SCHOLARS

# SCHOLARS



**Voorhees, Jennifer**  
Improving primary care  
Thomas Jefferson University



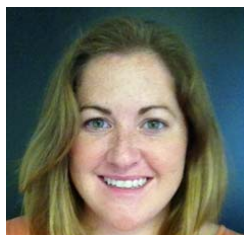
**Wilkinson, Joanne**  
People reporting functional disability in NHIS  
Boston University



**Brode, Erica**  
Primary care in the accountable care organization  
University of California, San Francisco



**Bennett, Heather**  
Social deprivation indices, primary care, and health: A regional comparison  
University of California, San Francisco



**Marietta, Amy**  
Primary care and health care access  
University of North Carolina Chapel Hill



**Chang, Tammy**  
Characteristics and health status of newly eligible adult Medicaid beneficiaries after patient protection and affordable care act (PPACA) expansion  
University of Michigan



**Stoltenberg, Mark**  
Evaluating educational health centers  
Loyola University, Chicago



**Kittle, Nathan**  
Family Medicine  
Swedish Medical Center



**Richards, Roxanne**  
Rhode Island: A brief: state of the state  
University of Virginia

Photo Not Available



**Maddren, Casey**  
Gender and the Health Workforce  
Australian Primary Care Research Institute

## EXAMPLES OF SCHOLAR PUBLICATIONS

### **A Small Percentage of Family Physicians Report Time Devoted to Research.**

Voorhees J, Xierali I, Bazemore A, Phillips R, Jaén C, Puffer J. J Am Board Fam Med. 2013;26(1):7-8.

Despite calls by family medicine organizations to build research capacity within the discipline, few family physicians report research activity. Policy that supports efforts in family medicine research and increases awareness of opportunities for primary care research in the practice setting is essential for family medicine to expand its scholarly foundations.

### **Is NIH Research Funding to Medical Schools Associated with More Family Medicine?**

Brode E, Petterson S, Bazemore A. Am Fam Phy. 2013;87(3)

National Institutes of Health (NIH) funding to family medicine departments is very low and has an inverse association with the production of family physicians at these medical schools. Clinical and Translational Science Awards and other efforts to include primary care in NIH research priorities should be considered to increase the family medicine workforce.



# 2013 SCHOLARS



# 2013 SCHOLARS

# SCHOLARS



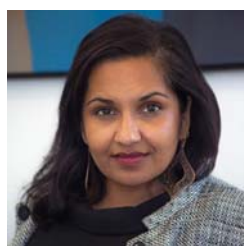
**Ekandham, Hima**

Are US Doctors Paid Too Much?  
An analysis of international variations in physician salary  
Montefiore Medical Center, Bronx NY



**Meyers, Elise**

Ecology of health care  
University of Illinois at Urbana-Champaign



**Sharma, Manisha**

Family Medicine  
St. George's University  
School of Medicine



**Fagan, Blake**

Family Medicine Residency  
Mountain Area Health Education Center



**Rayburn, William (Bill)**

Maternal-fetal medicine  
University of New Mexico



**Chen, Rossen**

Primary care residency expansion  
Family and Community Medicine at  
San Francisco General Hospital



**Freeman, Tom**

Schulich School of Medicine and  
Dentistry,  
The University of Western Ontario



**Chen, Din**

Health care Utilizations  
University of Rochester

Photo Not Available



**Brownlow, Amanda**

International Comparison: Telehealth use in Primary Care  
Australia Primary Health Care Research Institute  
Australia

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# SCHOLARS

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Photo Not Available **Barnes, Kate**  
**Pisacano Scholar**



**Mertz, Karl**  
**Pisacano Scholar**



## EXAMPLES OF SCHOLAR PUBLICATIONS

### **Patients with High Cost Chronic Conditions Rely on Primary Care Physicians**

**Manisha A. Sharma, MD**, Newton Cheng, Miranda Moore, Megan Coffman, Andrew Bazemore  
J Am Board Fam Med 2014;27:11-12.

Today's U.S. physician workforce is composed principally of specialists trained in the care of specific chronic conditions in the outpatient setting. However, a majority of patients seeking care for most of 14 high cost chronic conditions for example Hypertension (69% vs. 24%), were more likely to see a primary care physician than a specialist physician.

### **Trends in Family Physicians Performing Deliveries, 2003–2010**

**William F. Rayburn MD, MBA**, Stephen M. Petterson PhD Robert L. Phillips MD, MSPH Birth. 2014 Mar;41 (1):26-32.

**Objective:** This observational study examined the proportion of family physicians continuing to perform deliveries from 2003–2010.

**Methods:** Data were collected annually from the same census questionnaire completed by family physicians who passed their recertification examination. Aggregated responses began in 2003 when data first became available electronically and ended in 2009 before recertification changes. Using cross-sectional design and logistic regression analysis, we examined associations between physician demographic or geographic factors and performance of deliveries.

**Results:** The sample consisted of 49,267 family physicians

between 2003 and 2009, including 7,456 in 2009. The proportion performing any deliveries declined by 40.6 percent, from 17.0 percent in 2003 to 10.1 percent in 2009. Most recently, 5.5 percent of all family physicians delivered 1–25 babies per year, whereas 2.8 percent delivered 26–50, and 1.9 percent delivered  $\geq 51$ . Those who performed deliveries were most likely to be junior members of a partnership or group practice, and provided prenatal and newborn care. Deliveries were more common in nonmetropolitan areas, where other obstetric practitioners were unavailable.

**Conclusions:** The proportion of family physicians performing deliveries continues to decline with most delivering 25 or fewer babies per year. This change will require more effort by obstetrician-gynecologists and midwives in being primary birth attendants.

### **Ecology of Health Care: The Need to Address Low Utilization in American Indians/Alaska Natives**

**Elise A.G. Meyers, BA**; Stephen Petterson, PhD; Claire Gibbons, PhD; and Andrew Bazemore, MD, MPH Am Fam Physician. 2014 Feb 1;89(3):217-218.

Disparities in health and access to health care continue to persist among the American Indian/Alaska Native population, despite federal efforts to call attention to and address these disparities. Policy makers should direct resources to ensure that this population has sufficient access to primary care services and motivation to use those services, which are important factors in the struggle to reduce disparities. For historical reasons, the Ameri-

## EXAMPLES OF SCHOLAR PUBLICATIONS

can Indian/Alaska Native population is particularly at risk of health and health care disparities.

We examined national data to understand how American Indians/Alaska Natives use the health care system. To visualize the comparison, we employed an “ecology of health care” model, which uses relative box size to indicate differences between populations. We compared American Indians/Alaska Natives with the remaining U.S. population on self-rated poorer health.

This analysis reveals, as expected, the American Indian/Alaska Native population to be significantly more rural and impoverished than the rest of the U.S. population. In addition, American Indians/Alaska Natives rate their health as poorer, yet they access the health care system less often than the rest of the U.S. population. When they do access the health care system, they more often enter through emergency departments. Despite the poorer health of American Indians/Alaska Natives, the rates of primary care visits and hospitalizations are similar to the rest of the U.S. population. Health disparities in the American Indian/Alaska Native population remain a significant problem, despite efforts to address them. An association between stagnant funding and stagnant mortality rates for American Indians/Alaska Natives has been reported. Given that American Indians/Alaska Natives live within significantly sicker and poorer ecologies, allocation of scarce resources needs to disproportionately provide for their health. Additionally, this finding raises the question of why these populations are low utilizers of the health care system—a question that requires further investigation. Suggested explanations for the disparity include poor

access because of rurality and poverty, closer proximity of emergency departments compared with Indian Health Service or tribal health clinics, and poor cultural competence of health care professionals. Policy makers and planners serving this population should continue to invest in primary care solutions to enhance American Indian/Alaska Native access to care and to help reduce their disparities in health and health care.

### **Migration After Family Medicine Residency: 56% of Graduates Practice Within 100 Miles of Training**

**E. Blake Fagan, MD;** Sean C. Finnegan, MS; Andrew W. Bazemore, MD, MPH; Claire B. Gibbons, PhD, MPH; and Stephen M. Petterson, PhD Am Fam Physician. 2013 Nov 15;88(10):704.

With state planners working to address primary care shortages and federal graduate medical education payment reform looming, regional retention statistics for family medicine residency programs are a subject of high interest. Using the 2009 American Medical Association Physician Masterfile, we found that 56% of family medicine residents stay within 100 miles of where they graduate from residency.

Insurance expansion, paired with evidence of a primary care physician shortage and a known geographic maldistribution of primary care physicians, has policy-makers and stakeholders eager to understand the influence of family medicine residency program location on post graduation practice location. It is often quoted that 50% of family medicine residents stay within 100 miles of where they graduate, whereas in reality, little evidence exists to support this claim. A study in 1995 as-

## EXAMPLES OF SCHOLAR PUBLICATIONS

sessed all residency graduates (not exclusively family physicians) and found that 51% of physicians were practicing in the state in which they graduated from residency.

2009 data from the American Medical Association Physician Masterfile show that 56% of family medicine residency program graduates practice within 100 miles of their residency program. Of note, 19% locate within five miles, and 39% locate within 25 miles of their residency program distribution of physicians continues to compromise access to primary care, a problem compounded by limited volume of training outside of major metropolitan areas and large academic health centers. More research is needed to explore the influences of practice site other than training location, but these findings seem to support current efforts to decentralize graduate medical education training through models such as teaching health centers and rural training tracks.

### **Projected Impact of the Primary Care Residency Expansion Program Using Historical Trends in Graduate Placement**

**Rossan M. Chen, MD, MSc;** Stephen M. Petterson, PhD; and Andrew W. Bazemore, MD, MPH Am Fam Physician. 2014 Apr 1;89(7):518.

The Primary Care Residency Expansion (PCRE) program was created by the Health Resources and Services Administration in 2010 to help address the shortage of primary care physicians. If historical graduate placement trends for funded programs remain stable, the PCRE program would have a potential impact of more than 600 new physicians working in primary care.

In response to looming primary care work-force

shortages, the Health Resources and Services Administration funded a five-year, \$168 million grant to expand enrollment in primary care residency programs beyond their authorized graduate medical education caps.<sup>1</sup> By the end of the grant period in 2015, the program will have supported the training of 900 new residents in family medicine, general internal medicine, and general pediatrics.

Because the first cohort of residents has yet to enter into practice, historical data have been used to project the potential impact of the PCRE program.

Graduates of these residency programs from 2006 to 2008 were evaluated based on their practice location using the 2013 American Medical Association Physician Master-file and the National Plan and Provider Enumeration System.<sup>2</sup>

The proportion of PCRE residents projected to work in primary care does not account for those who will become hospitalists. This is likely offset by the higher proportion of PCRE residents training in primary care tracks, which have been shown to positively influence the decision to practice in primary care.<sup>3</sup> The findings highlight the potential impact of targeted investment in primary care residency training, with family medicine residency programs representing the highest return on investment for production of physicians working in primary care, health professional shortage areas, and rural areas (see accompanying table). Future directions in graduate medical education funding should focus on programs that have a proven track record of producing physicians working in shortage areas to better align taxpayers' investment in physician training with society's pressing health care needs.

## QUOTES FROM FORMER SCHOLARS

*"My month at the RGC opened my eyes to how productive a lean, sustainably resourced, and well-led research unit can be. Everyone with whom I interacted was open, generous, committed and a pleasure to work with. "* - Tom Freeman

*"Interacting with leaders in other medical specialties is very important as we tackle physician shortage and maldistribution issues," "being a non-family physician, I have always felt very welcomed and valued for collaborative work which may influence overall health care policy." - Bill Rayburn*

*"The Graham Center helped to further my career in residency education. During my time at the Graham Center, I learned about the structure of graduate medical education in the U.S. This allowed me to be more informed in my discussions with local, regional and national leaders in the field of GME."* - Blake Fagan



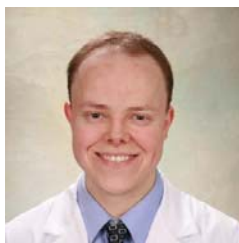
# 2014 SCHOLARS

# SCHOLARS



**Hinkle, Benjamin (Tate)**

Telehealth  
UAB— Huntsville Family Medicine Residency  
AAFP



**Eskew, Phillip**

Primary Care  
West Virginia School of Osteopathic Medicine



**Crothers, Jacob (Gus)**

Substance Abuse  
Grand Rounds, INC  
APT Foundation



**Lin, Susan**

International medical graduates  
Columbia University Medical Center



**Lin, Mark**

Medicaid Expansion  
University of California, Los Angeles



**Brown, Liz**

Primary care delivery and workforce  
University of Pennsylvania



**Kojima, Noah**

Primary care landscape  
University of California, Davis



**Banks, Gerald**

Primary Care in the ER  
Rutgers Family Medicine  
Residency Capital Health

## EXAMPLES OF SCHOLAR PUBLICATIONS

### **The Primary Care Workforce Opportunity Cost of Not Expanding Medicaid**

**Mark W. Lin, MD;** Stephen Petterson, PhD; Claire Gibbons, PhD; Andrew Bazemore, MD, MPH; and Sean Finnegan, MS Am Fam Physician. 2015 January

The Affordable Care Act aims to increase health coverage for uninsured Americans, partly through expansion of Medicaid eligibility. As of March 2014, 26 states and the District of Columbia have elected to expand this federally funded program, with 5 states pending action. This study aims to quantify the potential impacts of deciding to expand or not expand Medicaid on the primary care workforce in these states.

### **The Continued Importance of Small Practices in the Primary Care Landscape**

Robert Phillips JR., MD, MSPH; Kathleen Klink, MD; Steve Petterson, PhD; **Noah Kojima, BS;** and Andrew Bazemore, MD, MPH Am Fam Physician. 2014 Aug 15;90(4):online.

In 2010, as many as 45% of active primary care physicians (PCPs) were practicing at sites with five or fewer physicians. This large cohort of practices faces unique challenges in meeting the increasing demands of practice transformation, payer reporting requirements, and integrated delivery that merit policy maker and payer attention.

Efforts to transform and enhance national primary care practices are well underway, with some evidence that shows decreasing costs with expanding access and quality.<sup>1</sup> Innovations have been implemented in practices that are part of larger, integrated systems or when there are shared community resources that support population management

functions. Less has been written about transforming smaller practices, the number of which has not been well characterized.

Using National Provider Identifiers, which are required of physicians billing Medicare and Medicaid, we identified and located all PCPs by their street address and categorized all U.S. practices according to the number of PCPs collocated in a single site (see accompanying figure).<sup>2</sup> Of the nearly 283,000 PCPs with National Provider Identifiers, more than 127,500 (45.0%) are located at sites with five or fewer physicians. Nearly 35,000 (12.4%) PCPs are at sites with more than 75 PCPs. Notably, clinics with five or fewer PCPs make up the majority (88.9%) of all practice sites.

Given these dimensions, transformation efforts must accommodate a wide range of practice sizes and configurations. Solo or small sites that are part of larger clinical networks will likely benefit from their larger network management and resources<sup>3</sup> but may still need individualized strategies for successful transformation. The Affordable Care Act–authorized Primary Care Extension Program and initiatives to help create shared, community resources for small practices will be needed to achieve practice transformation on the scale required to improve health and health care, and reduce costs.





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*Policy Studies in Family Medicine and Primary Care*

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