

**The Robert Graham Center:
Policy Studies in Family Medicine and Primary Care**

**Publications, Scholars and Primary Care Fora
1999-2008**



AAFP Center for Policy Studies

The Robert Graham Center: Policy Studies in Family Medicine and Primary Care is a research center created and operated to improve individual and population health by enhancing the delivery of primary care. The Center aims to achieve this mission through the generation, synthesis and dissemination of evidence that brings a family medicine and primary care perspective to health policy deliberations from the local to international levels. For more information, please visit www.graham-center.org.

Table of Contents

Foreword.....	3
Articles, Monographs and Books: The value of primary care.....	6
Articles, Monographs and Books: Health access and equity.....	14
Articles, Monographs and Books: Delivery and scope of the medical home.....	23
Articles, Monographs and Books: Healthcare quality and safety.....	29
Robert Graham Center One-pagers.....	34
Washington Primary Care Fora.....	42
Larry A. Green Visiting Scholars.....	46
Robert Graham Center Fellows.....	47
Appendix: Graham Center Staff.....	48

The art of progress is to preserve order amid change.

Alfred North Whitehead

English mathematician & philosopher (1861 - 1947)

In 1999, Robert Graham Center director, Larry Green, and analyst, Ed Fryer, published an article in the *Journal of Family Practice* outlining the goals of the newly created AAFP Center for Policy Studies in Family Practice and Primary Care. The Center, initiated in 1997 by unanimous vote of the Board of the American Academy of Family Physicians and tasked to generate evidence in support of the Academy's advocacy efforts in Washington, had been in operation a mere five months prior to that publication. Yet, citing rising expenditures, disappointing outcomes, and dissatisfaction among all involved, Green and Fryer unequivocally asserted "something is terribly wrong" with healthcare in the United States.¹

With that article, the Graham Center began a dialog with primary care advocates, academics, clinicians, business leaders, public health professionals, and most importantly, policy makers. Now in its ninth year, and uniquely equipped through its relationship to a parent physician organization while maintaining editorial independence, the Graham Center has become a credible and timely source of information, publishing over ninety articles in peer-reviewed journals, twelve monographs, and fifty-two one-pagers in *American Family Physician*.

While the staff, location, and work of the Center have evolved over the years, it remains keenly focused on the goals envisioned by AAFP Executive Vice President and namesake, Robert Graham, MD, and articulated by Green and Fryer in 1999: to improve individual and population health through policy-relevant research, generating or synthesizing evidence regarding the value of family medicine and primary care.

In 2008, those goals could not be more timely, as primary care is poised for rediscovery. Following the release of the *Joint Principles of the Patient-Centered Medical Home* by the AAFP in partnership with

¹ Green LA, Fryer GE. The development and goals of the AAFP Center for Policy Studies in Family Practice and Primary Care. *J of Fam Pract* 1999; 48:905-908

the American Academy of Pediatrics (AAP), the American College of Physicians (ACP) and the American Osteopathic Association (AOA), the Patient-Centered Medical Home is garnering increasing support from physicians, business, consumer groups, and lawmakers.^{2,3} The Centers for Medicare and Medicaid Services (CMS) is planning a 3-year Medicare medical home demonstration project.⁴ Lawmakers in twenty-four states are considering bills that include references to the patient-centered medical home. Following the lead of IBM, large employers are espousing the value of primary care, and voters from all sides of the political spectrum are decrying the \$2.3 trillion they spent on healthcare in 2007, consistently citing health care as the most important issue of the 2008 presidential election.^{5,6}

The last time primary care seemed poised for rediscovery, few would have predicted that such well-intentioned policies would create a system so ‘terribly wrong.’ In a speech at the University of Lille in 1854, celebrated scientist, Louis Pasteur, said, "chance favors the prepared mind." It is our belief that the body of work contained in this compendium, spanning nine years and including contributions by more than seventy visiting scholars and eight fellows, represents the type of preparedness and ingenuity that allows one to create order amid uncertainty. In this time of change, policy makers will turn to those who are prepared to provide the answers.

Ever mindful of our goal to improve individual and population health through policy-relevant research regarding the value of family medicine and primary care, we are pleased to share this compendium of the Graham Center’s work from 1999-2008. We hope that it will inform this important discussion.

² American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association. Joint principles of the patient centered medical home. 2007. www.medicalhomeinfo.org/Joint%20Statement.pdf . 10-24-07.

³ The Commonwealth Fund. Patient-centered medical homes. *Quality Matters*, Jan/Feb 2008.

⁴ Tax Relief and Health Care Act of 2006. H.R. 6111, Sec. 204. Medicare Medical Home Demonstration Project. www.cms.hhs.gov/DemoProjectsEvalRpts/downloads/MedHome_TaxRelief_HealthcareAct.pdf . 10-24-2007.

⁵ Sepulveda MJ, Bodenheimer T, Grundy P. Primary Care: Can It Solve Employers’ Health Care Dilemma? *Health Affairs*. 2008;27:151-158.

⁶ Lubell J. Survey says...voters rank healthcare as their biggest issue. *Modern Healthcare*. 2007;37:8-9.

Articles, Monographs and Books. Articles, monographs and books offer the Graham Center an opportunity to disseminate in-depth analyses of issues pertinent to family medicine and primary care advocacy. The following is a list of abstracts of articles published in peer-reviewed journals, books, and monographs published by the Graham Center and collaborators between 1999 and 2008.

The Value of Primary Care. At Alma Ata in 1978, global leaders asserted that primary care is the central function and main focus of any just society's health care system. Through its research efforts, The Robert Graham Center seeks to demonstrate the value of primary care and identify options for enhancing its value.

1. The Development and Goals of the AAFP Center for Policy Studies in Family Practice and Primary Care

The American Academy of Family Physicians decided to establish a research center in Washington for the purpose of helping to bring a family practice and primary care perspective to policy issues. Key assumptions on which the Center is based include the centrality of primary care to successful health care systems and the ability of family physicians to contribute productively to achieving the primary care function for people in all socioeconomic strata and various life situations. While health policy is complex and involves many stakeholders with valid perspectives, the Center views its most important constituency as people still waiting for the benefits of robust primary care. Five initial objectives were articulated for the new Center: (1) facilitate cooperative relationships with others interested in health policy, (2) develop mechanisms to communicate ideas about primary care, (3) create a capacity to evaluate contemporary health policy issues from a family practice and primary care perspective, (4) support self-initiated investigations, and (5) seek reality check points as the Center emerged. With time, the goal of the Center is to become a credible source of important information about family practice and primary care and be an enduring piece of the Washington landscape. *Green LA, Fryer GE. The Development and Goals of the AAFP Center for Policy Studies in Family Practice and Primary Care. J of Fam Pract 1999;48:905-908.*

2. Rhetoric, Reality, and Revolution in Family Practice and Primary Care

In the context of continuing cycles of change in medicine, family practice remains important because of its success as a highly versatile medical specialty achieving the primary care function. Family practice is not trivial, but vital, worthy of the brightest and best. There is evidence that primary care and family practice are associated with good results, but are under-performing. The convergence of medical innovations, information technology sufficient for primary care, and the power of trusting doctor-patient relationships presents an opportunity for revolutionizing family practice and the rest of primary care. *Green LA. Rhetoric, Reality, and Revolution in Family Practice and Primary Care. Healthcare papers, 1999;1:57-60.*

3. Putting Practice into Research: A 20 Year Perspective

The feasibility of family physicians and other primary care clinicians to participate in important research as part of their routine practice is established. After more than 20 years of development, practice-based research networks are a proven infrastructure for enabling frontline clinicians to do research and are poised for expansion and improvement. Participating in research should be incorporated into routine family practice. *Green LA. Putting Practice into Research: A 20 Year Perspective. Fam Med 2000;32:396-7.*

4. Primary Care Research: Revisiting its Definition and Rationale

Primary care research draws on multiple sciences and is directed toward understanding and achieving the primary care function that is known to be central to effective and sustainable health care. The need for primary care research, its relevant research traditions, and the scope of its methods have been well-documented. However, too often the questions of basic biomedical research have been mistaken to represent the critical scope of medical research, and traditional laboratory methods have been seen as necessary and sufficient methods for understanding human health and illness. A balanced approach to research is needed. Primary care research includes theoretical and methodologic research, clinical research, health care research, and health systems and policy research. For people to receive the care they

need, more robust primary care is required, and progress depends in part on primary care research. Primary care research merits persistent advocacy. *Mold JW and Green LA. Primary Care Research: Revisiting its Definition and Rationale. J Fam Pract 2000;49:206-208.*

5. Practice Based Primary Care Research Networks. They Work and are Ready for Full Development and Support.

Practice based research networks are research laboratories as essential to advancing the scientific understanding of medical care as bench laboratories are to advancing knowledge in the basic sciences. Family physicians worldwide have managed to shine enough light on the world of front-line primary care practice to glimpse the potential enhancement offered by research done in networks of practices. These networks require leadership, personnel, communication systems, expert consultation, and time and support to mature. These laboratories need a broader recognition of their viability, importance and impact. They merit sustained funding as a continuing infrastructure, akin to a reusable rocket that can vary its payload. When this happens in countries around the world, the world will be a better place for all who become patients. *Green LA and Dovey SM. Practice Based Primary Care Research Networks. They work and are ready for full development and support. BMJ 2001;322:567-8.*

6. Direct Graduate Medical Education Payments to Teaching Hospitals by Medicare: Unexplained Variation and Public Policy Contradictions

This analysis using 1997 data showed huge interstate variation in the costs reported to Medicare by particular teaching hospitals (e.g. New York's highest rate was \$166,455 per resident while Hawaii's highest rate was \$61,038). It also showed substantial intrastate variation in reported costs (e.g. hospitals in California reported costs ranging from \$13,101 to \$172,335 per resident). These costs are the basis on which Medicare helps pay for the direct costs of graduate medical education (DME), and consequently there is great variation in the amounts Medicare pays for training physicians by virtue of where the physicians are trained. In some states, the range of DME paid to various hospitals exceeded the average cost. DME funding was found to be more generous in states with relatively less need for physician services. Based on historical precedents, persisting inequities in DME funding seriously undermine the potential use of Medicare GME payments as a strategic policy lever to assure the nation of an appropriate physician workforce. The data for teaching hospitals was loaded on to the Robert Graham Center website and has been repeatedly updated as latest data become available. *Fryer GE, Green LA, Dovey SM, Phillips RL. Direct Graduate Medical Education Payments to Teaching Hospitals by Medicare: Unexplained Variation and Public Policy Contradictions. Acad Med 2001;76:439-445.*

7. Conflicts of Physicians and Their Family Members: Rules but No Rulebook

This analysis revealed competing expectations facing physicians when family members are ill and exposed conflicting rules of appropriate conduct. Family members and the health care system have cultures and expectations that do not necessarily align. Inadequacies in current, fragmented approaches to health care compound these conflicting expectations. Physicians can prepare for possible identity conflicts by considering their personal expectations, but further attention is needed by medical educators and health care systems to directly address how physicians should respond when they find themselves in conflicting roles as a physician and a family member. *Chen FM, Feudtner C, Rhodes LA, Green LA. Role Conflicts of Physicians and Their Family Members: Rules but No Rulebook. West J Med 2001;175:236-239.*

8. It Takes a Balanced Health Care System to Get it Right

Editorializing about two manuscripts showing the value of primary care from a health system and population perspective, this report pointed out that the proportion of the physician population actually caring for people and in a primary care specialty varies widely within the United States: As little as 27.1% of physicians in Washington, D.C. and 31.6% in Connecticut and as much as 42.9% in Alaska and 41.7% in Iowa, with Florida representing the middle range at 33.5%. It speculated that this relatively small proportion of the physician workforce committed to primary care, in contrast to many other countries, is

a contributing factor to the poor performance of the United State's health care system, compared to other nations. It offered conjecture that working 95% as many hours as other specialists for 68% as much income might partially explain the relatively small proportion of primary care physicians in the US and the decline in interest by medical students. It concluded questioning, "What will it take to move from the United State's current expensive but inadequate approach that over-emphasizes disease-oriented, subspecialist medicine to a balanced sustainable patient-centered health care model that optimizes the capacities of an abundant well-trained health care workforce? *Green LA, Dovey SM, Fryer GE. It Takes a Balanced Health Care System to Get it Right. J Fam Pract 2001;50:1038-9.*

9. GME Financing Reform: The Saga Continues

As nonsensical and unfair as the current mechanism for GME funding is, fear of opening these entitlements to review and debate, and the risk that a dependable revenue stream might become subject to annual review or be removed altogether, keeps teaching hospitals, the recipients of GME funds from Medicare, in the same trench. Mutual survival is a rallying principle that trumps rational policy and the pursuit of objectives such as financial support for training outside hospital settings and transfer of funding to entities other than teaching hospitals. Rational reform requires united leadership from within the GME community and action by Congress and the Executive Branch to incentivize change. *Phillips RL, Fryer GE, Green LA. GME Financing Reform: The Saga Continues. J Gen Int Med 2002;17:311-312.*

10. The Role of Family Practice in Different Health Care Systems. A Comparison of Reasons for Encounter, Diagnoses, and Interventions in Primary Care

Only 35 groups of symptoms/complaints incorporated the top 30 reasons patients gave for going to their family physicians in the Netherlands, Japan, Poland, and the United States and accounted for 45-60% of all reasons for encounter. Despite this universality in scope of practice, substantial differences were found in diagnoses and in what was done, e.g. in diagnostic testing and prescribing of antibiotics, oral contraceptives, and heart medicines. Even under very different conditions there was substantial overlap in the reasons people went to their family physician, incidence rates, and encounters per diagnosis. These findings support the use of "reason for visit" as a core element of the consultation. Thus, analysis of episodes of care that begin with the patient's concern is a promising way of understanding family medicine. *Okkes IM, Polderman GO, Fryer GE, Yamada T, Bujak M, Oskam SK, Green LA, Lamberts H. The Role of Family Practice in Different Health Care Systems. A Comparison of Reasons for Encounter, Diagnoses, and Interventions in Primary Care Populations in the Netherlands, Japan, Poland, and the United States. J Fam Pract 2002;51:72-3.*

11. First Morning Back

This diary-based report documented the increasing difficulty of practicing in primary care settings. Medical knowledge and skills are, in general, the easy part; getting into a position to apply them is the challenge.

Green LA. First Morning Back. JAMA 2002;297:3053-3054.

12. Length and Content of Family Practice Residency Training

Based on opinions of family practice residency directors, matriculating first year residents, and family physicians due for their first re-certification, this study found that most supported a continuation of current 3-year model of training. However, 27% of residency directors, 32% of first year residents, and 28% of the practicing family physicians favored extending family practice residency to 4 years. There was considerable interest in changing the settings and content of family practice residencies, e.g. more training in office procedures and sports medicine. The amount of time suggested for deletions was much less than the amount of time suggested for additions. Almost no one wanted to reduce training to 2 years or extend it to 5 years or more. Many doubted the ability to extend training because of resource constraints. However, there was no clear consensus, suggesting that a period of elective experimentation might be needed to assure family physicians are prepared to meet the needs and expectations of their patients.

Duane M, Green LA, Dovey SM, Lai S, Graham R, Fryer GE. *Length and Content of Family Practice Residency Training*. *JABFP* 2002;15:201-208.

13. Health Care System and Insurer Support for Smoking Cessation Guideline Implementation

Stone TT, Longo DR, Phillips RL Jr, Hewett JE, Riley SL. *Health care system and insurer support for smoking cessation guideline implementation*. *Journal of Health Care Finance*. 2002;29(2):78-86.

14. The Effect of the 1997 Balanced Budget Act on Family Practice Residency Training Programs

Based on responses from 435 (96%) of family practice programs, the overall impact of the Balanced Budget Act of 1997 (BBA) was relatively small. In 1998 and 1999, there were 11 program closures, a net decrease of 82 residents, and a net increase of 52 faculty across program settings. The rate of residency program closures increased from an average of 3.0 per year between 1988-1997, to 4.8 per year in the 4 years following the BBA. These findings contrasted with widely held perceptions and indicate a need to monitor program closures to determine later effects. Schneeweiss R, Rosenblatt RA, Dovey S, Hart LG, Chen FM, Casey S, Fryer GE. *The Effect of the 1997 Balanced Budget Act on Family Practice Residency Training Programs*. *Fam Med* 2003;35:93-99.

15. Oral Vitamin D3 Decreases Fracture Risk in the Elderly

This "POEM" (patient-oriented evidence that matters) was co-authored with the Center's fellow and illustrates the intersections that always exist between frontline practice decisions, evidence, and policy. Guirguis-Blake J and Phillips RL. *Oral vitamin D3 decreases fracture risk in the elderly*. *J Fam Pract* 2003;52:431,435.

16. The Need for Research in Primary Care

Uniting the Donabedian triangle of structure, process and outcome with medical, contextual, and policy evidence, Dutch and US authors argued that the knowledge base of family medicine must be expanded using multiple methods to bridge the gap between evidence and practice and cross the quality chasm. It articulated 6 characteristics of trials most useful in family medicine and primary care, and pleaded for trials that start with usual complaints and symptoms. It concluded that a multimethod, transdisciplinary, participatory approach is necessary to create knowledge that retains connections with its meaning and context and, therefore, can be readily translated into practice. De Maeseneer JM, van Driel ML, Green LA, van Weel C. *The need for research in primary care*. *Lancet* 2003;362:1314-19.

17. Why does a US Primary Care Physician Workforce Crisis Matter?

More than 2 decades of accumulated evidence reveals that having a primary care-based health system matters. This editorial summarized some of this evidence and confirmed that the United States, with its weak primary care system, has poor outcomes at great expense, while other countries with stronger primary care have better outcomes at less expense. Thus, the growing crisis in the primary care physician workforce probably matters to just about everyone. Phillips RL, Jr. and Starfield B. *Why does a US primary care physician workforce crisis matter?* *American Family Physician* 2003;68:1494-99.

18. A Study of Closure of Family Practice Residency Programs

Twenty seven residencies closed between 2000 and 2004 (5%), a substantial increase over previous years. Through surveys and interviews, the characteristics of the program that closed were determined; and financial, political, and institutional leadership changes were identified by program directors as the most frequent explanations for closures. Strategies were identified for strengthening programs, averting closure, and minimizing damage when closure is inevitable. Gonzales EH, Phillips RL, Pugno PA. *A study of closure of family practice residency programs*. *Fam Med* 2003;35:706-10.

19. Exploring Residency Match Violations

The National Resident Matching Program (“the match”) is a long-established mechanism with contractual obligations designed to enable medical students and residency programs to find what they are looking for in a fair, organized manner. Using a key informant approach this study reported substantial confusion among students about what constitutes a violation of the rules of the match as they apply and interview for positions as residents after medical school. Violations occur, and the authors analyzed students’ experiences to suggest strategies to improve the process for schools, the Matching Program, and Residencies. *Phillips RL, Phillips KA, Chen FM, Melillo A. Exploring residency match violations. Fam Med 2003;35:717-20.*

20. The Balanced Budget Act of 1997 and the Financial Health of Teaching Hospitals

The Balanced Budget Act of 1997 (BBA) included the largest cuts in the history of Medicare and was projected to reduce Medicare payments for graduate medical education (GME), the largest single source of financing of GME, by \$2.3 billion. This manuscript reported, not conjecture, but the results of this legislation and found deep cuts in the profitability of teaching hospitals between 1996 and 1999, not entirely attributable to the BBA. More than one third operated in the red in 1999; and contrary to the study’s hypotheses, family medicine single-residency hospitals had better Medicare margins and total margins than multiple-residency hospitals. Very importantly, this manuscript made transparent the Medicare cost reports and variables necessary to evaluate Medicare GME financing, revealing the plausibility of ongoing evaluation of Medicare’s GME policy decisions. Of particular note, was the finding that the projected GME payments associated with Medicare + Choice were 90% less than projected, a circumstance that still merits audit and attention. *Phillips RL, Fryer GE, Chen FM, Morgan SE, Green LA, Valente E, Miyoshi TJ. The balanced budget act of 1997 and the financial health of teaching hospitals. Ann Fam Med 2004;2:71-78.*

21. Future of Family Medicine Recommendations Confirm Need for Increased Research from Family Physicians

This editorial focused on the membership of the North American Primary Care Research Group (NAPCRG), calling their attention to the fact that the recently released report of the Future of Family Medicine Project relied on research findings and calls early and often for various types of research, especially effectiveness research. Two of the key challenges issues in the report depend in part on NAPCRG: addressing the public’s perception that family medicine and primary care are not grounded in science and technology, and winning respect in academic circles. Among the declared strategic priorities is “advancing research that supports the clinical decision making of family physicians and other primary care clinicians.” *Green LA. Future of family medicine recommendations confirm need for increased research from family physicians. Ann Fam Med 2004;2:282-283.*

22. Annals of Family Medicine is 1 Year Old: So What and Who Cares?

This invited editorial reported the distribution of articles by type during the first year of publication of this new primary care research journal and observed that Annals has been a welcome new infrastructure for family medicine and primary care. It can be used as a reference for the claim that “never before has a nation spent so much to accomplish so little for so few.” And therein lies the answer to who should care about the Annals—just about everyone who has had enough of the disgrace that passes for a health care system in the US. *Green LA. Annals of Family Medicine is 1 year old: so what and who cares? Ann Fam Med 2004;2:197-199*

23. The Research Domain of Family Medicine

This report was part of a special journal supplement reporting the World Organization of Family Doctors’ international research meeting in Hamilton, Ontario designed to elevate research on to the international primary care agenda. Taking six different approaches based on decades of published work, it characterized the research domain of family medicine and primary care as vast, but explorable. Just

because one can't find the edge of the universe does not mean the universe does not exist or can not be explored. *Green LA. The research domain of family medicine. Ann Fam Med 2004;2:S23-S29.*

24. How Family Physicians are Funded in the United States

This invited editorial reported on the payment structure in the U.S. for Family Physicians. The current system undervalues family medicine and primary care and states that the current system will probably become untenable in 10-20 years. The editorial discusses the new model of family medicine. *Green LA. How family physicians are funded in the United States. Med J Aus 2004;181:113-114.*

25. Follow-Up on Family Practice Residents' Perspectives on Length and Content of Training

This study is a follow-up to a study published in 2002 on the length and content of family practice residencies. The study resurveyed 442 third-year family practice residents who had participated in the 2000 study to determine whether their opinions about the length and content of residency had changed and whether they would still choose to be a physician and a family physician. Although most surveyed residents favored a 3-year residency program, a minority still supported extending training to 4 years, and the majority would still choose to enter family medicine programs if they were extended. *Duane M, Dovey SM, Klein LS, Green LA. Follow-up on family practice residents' perspectives on length and content of training. J Am Board of Fam Pract 2004;17:377-384.*

26. The Nature of Primary Care

Green LA, Phillips RL, Fryer GE. The nature of primary care. In Oxford Textbook of Primary Medical Care. Jones, Britten, Culpepper, Gass, Gol, Maint, Silogy (Eds.). Oxford University Press, Oxford and New York, 2004: Pages 3-10

27. Is Primary Care Worthy of Physicians? An Ecological Perspective

Green LA. Is primary care worthy of physicians? An ecological perspective. The Future of Primary Care. Showstack, Anderson Rothman, Hassmiller (Eds.). Jossey-Bass, San Francisco, CA, 2004. Pages 143-160

28. The Physician Workforce of the United States: A Family Medicine Perspective

This is the report of a study chartered by the American Academy of Family Physicians (AAFP) to review prior physician workforce studies, characterize the current family medicine workforce, and assess the supply, demand and need for family physicians in the next 5 to 15 years. The study was organized to include information about other primary care professionals, and to incorporate the views of workforce policy experts of these professions.

Green LA, Dadoo MS, Ruddy G, Fryer GE, Phillips RL, McCann JL, O'Neil EH, Klein L. The Physician Workforce of the United States: A Family Medicine Perspective. October 2004.

29. Adding More Specialists is Not Likely to Improve Population Health: Is Anybody Listening

This invited editorial was in response to Barbara Starfield's paper titled: "The Effects of Specialist Supply On Populations' Health: Assessing The Evidence" published on March 15. The editorial states that before a shortage of physicians, and particularly subspecialists, in the United States is declared, it is worth reviewing the considerable evidence that calls into question whether further specialization automatically improves health. Starfield's research reveals that having more specialists may not be a good thing. The current workforce functions well as an economic engine, but continued emphasis on market demand will likely widen disparities in workforce distribution and population health. *Phillips RL, Dadoo MS, Green LA. Adding more specialists is not likely to improve population health: Is anybody listening. Health Affs 2005; March 15 (web exclusive).*

30. COGME's 16th Report to Congress: Too Many Physicians Could Be Worse Than Wasted

Departing from past reports, the latest Council on Graduate Medical Education (COGME) report warns of a physician deficit of 85,000 by 2020 and recommends increases in medical school and residency output. COMGE notes that contribution of other clinicians and changes in how medical care is delivered in the future would likely offset physician deficits but chose not to modify their recommendations. Great caution should be exercised in expanding the workforce. Producing a physician surplus could be far worse than wasted, because the investment required and resulting rise in health care cost may harm, not help, the health of people in the United States. Instead, these resources could be applied in ways that improve health. *Phillips RL, Dodoo M, Jaen CR, Green LA. COGME's 16th Report to Congress: Too many physicians could be worse than wasted. Ann Fam Med 2005; 3:268-270.*

31. Report to the Task Force on the Care of Children by Family Physicians

Robert L. Phillips, Jr., MD MSPH, Martey S. Dodoo, PhD, Jessica L. McCann, MA, Andrew Bazemore, MD, George E. Fryer, PhD, Lisa S. Klein, Michael Weitzman, MD, Larry A. Green, MD. Report to the Task Force on the Care of Children by Family Physicians, April 2005. Available at: <http://www.graham-center.org/x570.xml>

32. Notes from Visit to the National Primary Care Research and Development Centre, University of Manchester, England

Larry A. Green, Martey Dodoo, Martin Roland. Notes from Visit to the National Primary Care Research and Development Centre, University of Manchester, England July 2005. Available at: <http://www.graham-center.org/x570.xml>

33. Four-Year Residency Training for the Next Generation of Family Physicians

The current 3-year model has effectively and efficiently prepared nearly 70,000 family physicians whose care is associated with beneficial outcomes. With the new challenges we face and the specialty's commitment to a new model of care, it is time to consider transforming the manner and length of time in which we train family physicians. It is highly doubtful that a reduction in training time is an option if family medicine is to grow as a specialty and respond to the desire of many Americans for a new relationship with the health care system. Reducing the training time of family physicians would be a retreat from current trends and opportunities. What is needed is a period of purposeful innovation, with desired training outcomes geared to a new model of delivering care. *Duane M, Phillips RL. Four-year residency training for the next generation of family physicians. Virtual Mentor 2005; 7(5). Available at <http://www.ama-assn.org/ama/pub/category/15104.html>.*

34. The Family Physician Workforce: Quality Not Quantity

This invited editorial is based off of Graham Center One-Pager #30 on physician workforce in 2004. The editorial was a means for the Graham Center to introduce the subsequent nine one-pagers on physician workforce. *Green LA, Phillips RL. The family physician workforce: Quality not quantity. Am Fam Physician 2005; 71: 2248-2253.*

35. Democratizing and Displaying Health Data: Introducing HealthLandscape.Org

Despite the power of geographic information systems (GIS) to interact and display data relating to health, broad adoption of the technology in this sector remains unrealized. To overcome the financial, technical, and temporal hurdles to using GIS in education and advocacy, four partners developed HealthLandscape. This interactive, web-based GIS platform allows health professionals, policy makers, academic researchers and planners to combine, analyze and display information in ways that promote understanding and improvement of health and healthcare. A collaborative effort of the American Academy of Family Physicians, the Robert Graham Center for Policy Studies, the Health Foundation of Greater Cincinnati, and the University of Cincinnati, this site has three components: 1) Community Health View, 2) the Primary Care Atlas, and 3) the Health Center Mapping Tool. We describe the development and applications of this innovative platform, and how HealthLandscape helps its users to

understand health and health needs in their community, evaluate programs, and influence policy. *Andrew Bazemore, Mark Carrozza, Shiloh Turner, Xingyou Zhang, Bob Phillips. Available online at <http://www.graham-center.org/x994.xml>*

36. Seeking a Replacement for the Medicare Physician Services Payment Method: A New Approach Improves Health Outcomes and Achieves Budgetary Savings

Business and government spending on physician services have soared over the last few decades. Most payers for services traditionally peg their payment rates to Medicare. However, most consider the current Medicare single payment rate flawed because it fails to improve health outcomes or control spending. Everyone wants to replace it, but good replacements have not been identified. We estimated elasticities of the single-payment rate with respect to several of its determinants, proposed a replacement—a service-specific payment rate—for the single-payment rate, and estimated the budget implications of this replacement. Key findings are that the single-payment rate is relatively inelastic to the Sustained Growth Rate (SGR) and expenditure levels and that the proposed service-specific payment rate promotes primary care, controls spending, and saves money.

Dodoo, MS, Phillips, RL, Green, LA. Seeking a replacement for the Medicare physician services payment method: a new approach improves health outcomes and achieves budgetary savings. Business Economics. 2007;42:3.

37. The Effect of Offering International Health Training Opportunities on Family Medicine Residency Recruiting

While medical students' interest in family medicine declines, and residency programs face recruiting challenges, interest in international health is increasing. We studied the influence of offering an international health track (IHT) on residency recruitment. Methods: We surveyed all graduates between the years 1994–2003 of a family medicine residency program offering an optional IHT (n=90). Descriptive and bivariate analyses characterized and compared the geographic scope and residency selection criteria of IHT participants and nonparticipants. The response rate was 77%. Compared to nonparticipants in the IHT, residents who participated in the IHT reported coming a significantly greater median distance from their medical school training site (250–499 miles versus 0–99) and from their “home” (500–999 miles versus 100–249) for residency training. Participants reported that the factor most positively influencing their choice of this residency training site over others was the IHT (mean=+2.5, standard deviation [SD]=0.90), outscoring, on average, location, faculty quality, resident quality, and spousal preference. Nonparticipants' choices were influenced most by the traditionally reported selection factors location (mean=+2.37, SD=1.14) and faculty quality (mean=+2.29, SD=0.97). Conclusions: One program's experience suggests that the presence of international health training opportunities may influence the residency selection choices of family medicine residents. As family medicine moves to reinvent residency education and to recapture student interest, attractive training models that integrate clinical, community, and public health should be evaluated further. *Andrew W. Bazemore, MD, MPH; Maurice Hencin, MD; Linda M. Goldenhar, PhD; Magdalena Szaflarski, PhD; Christopher J. Lindsell, PhD; Philip Diller, MD, Ph. The Effect of Offering International Health Training Opportunities on Family Medicine Residency Recruiting. Fam Med 2007;39(4):255-60.*

Health Access and Equity. Despite leading the world in healthcare expenditures, resources and technology, the United States lags behind other developed countries in most measures of population health. Overcoming this gap will require some fundamental level of access to all people in the United States. Through its research efforts, The Robert Graham Center seeks to inform policy that removes barriers to accessing healthcare and leads to a more equitable system of healthcare for all.

1. Multi-Method Assessment of Access to Primary Medical Care in Rural Colorado

Policy Relevance: This paper introduces new analytical techniques helpful in evaluating the adequacy of accessibility to generalist physician resources for residents of non-MSA areas. Using methods which reveal provider caseload implications for the results of distance to care normative modeling can inform configuration of primary care delivery systems sensitive to the distribution of rural populations. Fryer GE, Drisko J, Krugman, RD, Vojir CP, Prochazka A, Miyoshi TJ, Miller ME. *Multi-method assessment of access to primary medical care in rural Colorado: an analytical advance.* *J Rural Health*, 1999; 15(3):113-121.

2. Hispanic versus White, Non-Hispanic Physician Medical Practices in Colorado

In Colorado, compared to non-Hispanic white physicians, Hispanic physicians spent more hours per week in direct patient care and were more likely to practice in a primary care specialty. Hispanic primary care physicians were more likely to establish practice in areas with more Hispanic people and people below poverty level, regardless of their race and ethnicity. These findings support implementation and continuation of special programs to admit ethnic minorities to undergraduate and graduate medical education programs as a component of efforts to assure care for everyone. Fryer GE, Green LA, Vojir CP, Krugman RD, Miyoshi TJ, Stine C, Miller ME. *Hispanic versus White, Non-Hispanic Physician Medical Practices in Colorado.* *J Health Care for Poor and Underserved* 2001;12:342-351.

3. Changes in Out-of-Pocket Payments in Utilization of Healthcare Services (Protocol)

This protocol was developed to guide systematic assessment of the evidence concerning the effects of out-of-pocket payments on utilization of health care services. Dovey S, Morton L, Meyers D, Phillips R. *Changes in Out-of-Pocket Payments in Utilization of Healthcare Services (Protocol).* *The Cochrane Library*, 2, 2001. Oxford: Update Software.

4. Reply to Letters to the Editor

This short note clarified the limitations of important national data sets and most importantly restated that the ecology of medical care model is based, not on events, but on people. It confirms how difficult it is for many health care professionals and policy makers to think from a population perspective, e.g. 8 different individuals per 1000 per month being in the hospital rather than 8 discharges in a month from a hospital. Green LA, Lanier D, Yawn BP. *Reply to Letters to the Editor.* *N Eng J Med* 2001;345:1212.

5. The Ecology of Medical Care Revisited

This manuscript updated the classic ecology of medical care study published in 1961 and showed again that physicians' offices remain the largest platform of formal health care in the United States. It extended earlier work by including children in the analysis and by adding additional settings of care, such as complementary or alternative medical care and home care. In a typical month in the United States in 1996, of every one thousand individuals: 800 reported symptoms, 327 considered seeking medical care,

217 visited a physician's office (approximately 113 in a primary care physician's office), 65 were seen by a complementary or alternative care provider, 21 visited a hospital outpatient clinic, 14 received home health care, 13 visited an emergency department, 8 were hospitalized, and less than one is seen at an academic health center. The continued focus of education and research on hospitals and the problems seen within them, some 40 years later, persists and still invites policy revisions that better balance education, research and service toward the needs of the entire population. *Green LA, Fryer GE, Yawn BP, Lanier D, Dovey SM. The Ecology of Medical Care Revisited. N Eng J Med 2001;344:2021-2025.*

6. The Association of Title VII Funding to Departments of Family Medicine with Choice of Physician Specialty and Practice Location

Title VII predoctoral and departmental grants to academic departments of family medicine from the Health Resources and Services Administration are intended by Congressional charge since 1978 to increase the number of family and primary care physicians in the US and increase the number of physicians practicing in rural and underserved communities. In 1998 Congress placed increased emphasis on accountability for these grants with respect to outcomes. This analysis evaluated the program from its beginning and found that Title VII departmental and predoctoral grants were significantly associated with choice of family practice and primary care and with practice in whole-county primary care shortage areas and in rural counties. This effect was also found in a sub-analysis of 30 medical schools with initial periods of no Title VII support followed by later periods when they had Title VII support, arguing against selection bias as an alternative explanation. If physicians who attended medical schools that received any Title VII support had chosen family practice at the rate of physicians whose schools had no support during their enrollment (10.2% rather than 15.8%), 6968 fewer active patient care family physicians would have been practicing in 2000, 27% less than the 25, 816 total for the 13-year period evaluated. The average annual grant amount per institution was \$127,500. Title VII is a federal grant program that appears to have worked, with a great return on investment. *Fryer GE, Meyers DS, Krol DM, Phillips RL, Green LA, Dovey SM, Miyoshi TJ. The Association of Title VII Funding to Departments of Family Medicine with Choice of Physician Specialty and Practice Location. Fam Med 2002;34:436-40.*

7. Accounting for Graduate Medical Education Funding in Family Practice Training

Medicare provides the majority of explicit funding to support graduate medical education (GME), and the flow of these funds from hospitals to training programs is an important step in accounting for GME funding. Fifty one percent of family practice programs did not know how much federal GME funding they received. Programs that were the only residency in the hospital (61% versus 36%) and those that were community hospital based programs (53% versus 22%) were more likely to know their GME allocation. The allocation of direct Medicare GME funding to residency programs varied among programs with programs operating in hospitals with more than one residency receiving less of their designated direct medical education payment (-45% versus +19%). Improved accountability is needed in the use of Medicare payment designated for medical education. *Chen FM, Phillips RL, Schneeweiss R, Andrilla HA, Hart LG, Fryer GE, Casey S, Rosenblatt RA. Accounting for Graduate Medical Education Funding in Family Practice Training. Fam Med 2002;34:663-558.*

8. International Medical Graduates and the Primary Care Workforce for Rural Underserved Areas

The Council on Graduate Medical Education, the Institute of Medicine, the American Medical Association, and other national organizations have concluded that there is an oversupply of physicians but that they are poorly distributed geographically and by specialty. This surplus resulted from efforts to expand physician supply, and indeed from 1970 to 1994 while the US population increased 21%, the number of medical students increased 66% and the number of residents and fellows increased 259%. The percentage of residents who are international medical graduates (IMG's) increased to 26.4% in 2000 and dropped to 25.5% in 2001. The extent to which IMG's become primary care physicians and locate in rural underserved areas has important policy implications, with some studies suggesting that IMG's are more likely than US graduates to locate in such areas. In the year 2000, 2.1% of US medical graduates

and IMGs were primary care physicians in rural underserved areas. The US medical graduates in these rural areas were more likely to be family physicians and less likely to be internists or pediatricians. IMG's appear to have been no more likely than US medical graduates to practice primary care in rural underserved areas. *Fink KS, Phillips RL, Fryer GE, Koehn N. International Medical Graduates and the Primary Care Workforce for Rural Underserved Areas. Health Affairs 2003;22:255-262.*

9. Receipt of Preventive Care Among Adults: Insurance Status and Usual Source of Care

Receipt of preventive services, such as blood pressure checks, cholesterol checks, cervical cancer screening, and mammograms, was strongly associated with having health insurance and having a usual source of care. Significant differences were found between insured US adults with a usual source of care, who were most likely to have received preventive services, compared with uninsured adults without regular care, who were least likely to have received preventive services. Those with either a usual source of care or insurance had intermediate levels of preventive services. After controlling for demographic variables such as race, educational status, and living in rural areas, both insurance and a usual source of care had independent, additive effects on receipt of preventive services. Having insurance and a usual source of care are both important to achieving national prevention goals. *DeVoe JE, Fryer GE, Phillips RL, Green LA. Receipt of Preventive Care Among Adults: Insurance status and usual source of care. Am J Public Health 2003;93:786-791.*

10. Using Geographic Information Systems to Understand Health Care Access

Locating people and patients in order to understand their health care problems and their access to care is not a new concept in primary care, but advances in geographic information systems (GIS) present new opportunities to better understand access and respond to deficiencies. An analysis for a community health center in Boone County illustrates this potential by examining discrepancies between target and actual service areas. Nearly half of the census block groups in the actual service area were outside of the target service area. Mapping the location of people with poor access to health care and of different income levels revealed the spatial distribution of impoverished areas with relatively higher and lower use of the community health center. This information supported an expansion of federal funding, identification of sites for satellite operations, and outreach efforts. Because community health centers regularly report a Uniform Data Set, most of them have data sufficient to replicate mapping processes that could become a centralized function, supported by the same federal agencies that support community health centers. With efforts underway to double the capacity of community health centers nationwide during the next five years, a relatively minor investment in GIS might make this investment more efficient. *Phillips RL, Parchman ML, Miyoshi TJ. Using Geographic Information Systems to Understand Health Care Access. <http://gis.esri.com/library/userconf/health01/papers/hc01> (accessed 5/28/03).*

11. The Ecology of Medical Care for Children in the United States

The famous ecology of care model has never been created for children until this study. Of 1000 children aged 0-17 years, on average, each month: 167 visit a physician's office, 82 a dentist's office, 13 an emergency department, 8 a hospital outpatient clinic, 3 are hospitalized and 2 receive care in their home. Younger children are more likely to receive care in all health care settings except dentists' offices. Poverty, lack of health insurance, black race, and Hispanic ethnicity were associated with decreased receipt of care in physicians' and dentists' offices. Rural residence was not associated with any significant variation in proportions of children receiving care in any setting. Having a usual source of care was associated with increased receipt of care in all settings except hospitals. Like adults, far more children receive health care in community-based, outpatient settings than in hospital settings. A balanced approach to education, research and service requires attention across these settings if children are to benefit fully from health care. *Dovey SM, Weitzman M, Fryer GE, Green LA, Yawn B, Lanier D Phillips RL. The Ecology of Medical Care for Children in the United States. Pediatrics 2003;111:1024-1029.*

12. Variation in the Ecology of Medical Care

Data from the 1996 Medical Expenditures Panel Survey (MEPS) were used to estimate the number of persons per 1,000 per month in 1996 who had at least 1 contact with physicians' offices, hospital outpatient departments, or emergency departments, hospitals, or home care. These data were stratified by age, sex, race, ethnicity, household income, education of head of household, residence in or out of metropolitan statistical areas, having health insurance, and having a usual source of care. Physicians' offices were overwhelmingly the most common site of health care for all subgroups studied. Lacking a usual source of care was the only variable independently associated with a decreased likelihood of care in all 5 settings, and lack of insurance was associated with lower rates of care in all settings but emergency departments. Generally, more complicated patterns emerged for most sociodemographic characteristics. The combination of having a usual source of care and health insurance was especially related to higher rates of care in all settings except the emergency department. Frequency and location of health care delivery varies substantially with sociodemographic characteristics, insurance, and having a usual source of care. Understanding this variation can inform public consideration of policy related to access to care. *George E. Fryer, Jr., PhD Larry A. Green, MD Susan M. Dovey, PhD Barbara P. Yawn, MD Robert L. Phillips, MD David Lanier, MD Variation in the Ecology of Medical Care. Annals of Family Medicine, July/August 2003.*

13. Disparities in Health Care in the United States Apparent in the Ecology of Medical Care

This chapter contributed to a conference on primary care for the underserved that included the dedication of the National Center for Primary Care at Morehouse School of Medicine. It included evidence that: older patients are no different than others in their use of emergency departments, boys and men are rather dramatically less likely than girls and women to receive care in all settings except emergency departments; and with increasing educational attainment of heads of households people get less care in hospitals, home and emergency departments and more care in physicians' offices. This chapter identified physicians' offices and hospital outpatient departments as the remaining locus of reduced participation in health care by blacks compared to whites. It raised questions, such as "Is it likely that equity in health care can be achieved without assuring everyone a medical home?" *Green LA. Disparities in health care in the United States apparent in the ecology of medical care. In Macy-Morehouse Conferences on Primary Care for the Underserved. Hager M (ed). Josiah Macy, Jr. Foundation. New York, New York. 2003; 139-146.*

14. Geographic Retrofitting: A Method of Community Definition in Community-Oriented Primary Care Practices

Defining the community for which a primary care practice is responsible has been a major disabler for implementing the concepts of community oriented primary care in the United States. This report used the case of Boone County, Missouri to demonstrate how a technique named "geographic retrofitting" can aid the full implementation of community-oriented primary care. Extending geographic analysis to calculate levels of penetration of a practice into specific locations revealed how powerful an aid this technique can be for evaluation and planning. *Mullan F, Phillips RL, Kinman EF. Geographic retrofitting: a method of community definition in community-oriented primary care practices. Fam Med 2004;36:440-6.*

15. Who are the Uninsured Elderly in the United States?

It is commonly assumed that all older Americans have health insurance coverage through Medicare, but this report revealed it is not so. Approximately 350,000 older people have no health insurance, and these are more likely to be Hispanic, not white, unmarried, poor, and foreign-born. These uninsured elderly have relatively high rates of chronic medical conditions, but are unlikely to receive outpatient or home health care services. Many of these people failed to qualify for Medicare, not because they did not work, but because of their working and marital arrangements. Based upon rapid growth of the elderly population in general and Hispanics in particular, these figures can be expected to increase unless something is done to close the gaps in Medicare coverage. *Mold JW, Fryer GE, Thomas CH. Who are the uninsured elderly in the United States? J Am Geriatr Soc 2004;52:601-606.*

16. Modifiable Determinants of Healthcare Utilization Within the African-American Population.

This study looked at disparities in access to and utilization of healthcare by African Americans. The analysis looked at the differential effects of modifiable risk factors (such as health insurance, usual source of care, and poverty) from personal characteristics (age, gender, rural residence) on healthcare utilization. This was a secondary data analysis using the 1999 MEPS Household file. There was significant variation in the number of office visits, outpatient clinic visits, hospital discharges, days hospitalized, and fills of prescribed medication. The three modifiable factors of poverty, uninsurance, and having a primary care medical home have a dramatic effect on patterns of care for African-American patients and could be independently targeted for intervention.

Rust G, Fryer GE, Phillips RL, Daniels E, Strothers H, Satcher D. Modifiable determinants of healthcare utilization within the African-American population. JNMA 2004; 96:1169-1177.

17. Variation in Participation in Health Care Settings Associated with Race and Ethnicity

This study sought to use the ecology model of health care to contrast participation of black, non-Hispanics (blacks); white, non-Hispanics (whites); and Hispanics of any race (Hispanics) in 5 health care settings and determine whether disparities between those individuals exist among places where they receive care. The 1996 MEPS panel survey data were used to estimate the number of black, white, and Hispanic people per 1,000 receiving health care in each setting. Fewer blacks and Hispanics than whites received health care in physicians' offices, outpatient clinics, and emergency departments in contrast to hospitals and home care. Research and programs aimed at reducing disparities in receipt of care specifically in the outpatient setting may have an important role in the quest to reduce racial and ethnic disparities in health. *Bliss EB, Meyers DS, Phillips RL, Fryer GE, Dovey SM, Green LA. Variation in participation in health care settings associated with race and ethnicity. J Gen Intern Med 2004;19:931-936.*

18. When Do Older Patients Change Primary Care Physicians?

The purpose of this study was to look at the reasons that older patients give for changing primary care physicians (PCPs) and to look at relationships between the duration of the PCP-patient relationship and the perceived quality of primary care received. Data collected during the first 2 years of a longitudinal study of primary care patients 65 years of age and older was analyzed. Older patients, particularly those who are older and have more education and income, tend to stay with their PCPs until they are forced to change. The longer they stay in the relationship the better they feel about the quality of the primary services they receive. Changes in the health care system may have increased the number of patients forced to change PCP. *Mold JW, Fryer GE, Roberts AM. When do older patients change primary care physicians? J Am Board Fam Pract 2004;17:453-460.*

19. The Health Impact of Resolving Racial Disparities: An Analysis of US Mortality Data

The US health care system spends far more on the "technology" of care (e.g. drugs, devices) than on achieving equity in its delivery. For 1991 to 2000, the study used data from the National Center for Health Statistics to estimate the maximum number of deaths averted by improving the technology of care and the number of avoidable deaths had African-Americans experienced the age-adjusted mortality rates of Whites. Medical advances averted 176,633 deaths, but equalizing the mortality rates of Whites and African Americans would have averted 886,202 deaths. Achieving equity may do more for health than perfecting the technology of care.

Wolf SH, Johnson RE, Fryer GE, Rust G, Satcher D. The health impact of resolving racial disparities: An analysis of US mortality data. Am J Public Health 2004;12:2078-2081.

20. What if We Were Equal? A Comparison of the Black-White Mortality Gap in 1960 and 2000

The United States has made progress in decreasing the black-white gap in civil rights, housing, education, and income since 1960, but health inequalities persist. We examined trends in black-white standardized mortality ratios (SMRs) for each age-sex group from 1960 to 2000. The black-white gap measured by SMR changed very little between 1960 and 2000 and actually worsened for infants and for African

American men age thirty-five and older. In contrast, SMR improved in African American women. Using 2002 data, an estimated 83,570 excess deaths each year could be prevented in the United States if this black-white mortality gap could be eliminated. *Satcher D, Fryer GE, McCann J, Troutman A, Woolf SH, Rust G. What if we were equal? A comparison of the black-white mortality gap in 1960 and 2000. Health Affs 2005; 24:459-464.*

21. Changes in Age-Adjusted Mortality Rates and Disparities for Rural Physician Shortage Areas Staffed by the National Health Service Corps: 1984-1998

This study assesses whether the National Health Service Corps's legislated goals to see health improve and health disparities lessen are being met in rural health professional shortage areas for a key population health indicator: age-adjusted mortality. From the early 1980s through the mid-1990s, the NHSC's goal to see health improve in rural health professional shortage areas was met, but its goal to diminish geographical health disparities was not. *Pathman DE, Fryer GE, Green LA and Phillips RL. Changes in age-adjusted mortality rates and disparities for rural physician shortage areas staffed by the National Health Service Corps: 1984-1998. J Rural Health 2005;21:214-220.*

22. Using the Ecology Model to Describe the Impact of Asthma on Patterns of Health Care

This is a case-control study comparing the ecology of medical care for adults and school-aged children with asthma to the ecology of care for adults and school-aged children without any known chronic, life threatening or mental health conditions. The cases and controls were selected from participants in the 1999 MEPS. The ecology of medical care for school-aged children and young adults with self-reported asthma reveals a pattern of health care contacts that is distinctly different from those without priority conditions and identifies a group that may be the victim of health care disparities. *Yawn BP, Fryer GE, Phillips RL, Dovey SM, Lanier D, Green LA. Using the ecology model to describe the impact of asthma on patterns of health care. BMJ Pulmonary Medicine 2005, 5:7.*

23. Primary Care in the United States: Problems and Possibilities

This invited article was part of series in the *BMJ* on the UK's planned market reforms on the delivery of primary care. This article describes the market approach in the US primary care healthcare delivery workforce and suggests policy options to improve access to high quality primary care for all people in the US. *Phillips RL. Primary care in the United States: Problems and possibilities. BMJ 2005; 331:1400-1402.*

24. Patients' Beliefs about Racism, Preferences for Physician Race, and Satisfaction With Care

Few studies have attempted to link patients' beliefs about racism in the health care system with how they use and experience health care. Using telephone survey data from a national sample of 1,479 whites, 1,189 African Americans, and 983 Latinos, we explored patients' beliefs about racism, their preferences for the race and ethnicity of their physician, and their satisfaction with that physician. A scale was developed to reflect patients' beliefs about racism. Race-stratified analyses assessed associations between patients' beliefs, racial preferences for physicians, choice of physician, and satisfaction with care. Among African Americans, stronger beliefs about racial discrimination in health care were associated with preferring an African American physician ($P < .001$). Whereas only 22% of African Americans preferred an African American physician, those who preferred a African American physician and had an African American physician were more likely to rate their physician as excellent than did African Americans who preferred a African American physician but had a non-African American physician (57% vs 20%, $P < .001$). Latinos with stronger beliefs about discrimination in health care were more likely to prefer a Latino physician ($P < .001$). One third of Latinos preferred a Latino physician. Though not statistically significant, those who preferred and had a Latino physician rated their physician higher than Latinos who preferred a Latino physician but had a non-Latino physician (40% vs 29%). Many African Americans and Latinos perceive racism in the health care system, and those who do are more likely to prefer a physician of their own race or ethnicity. African Americans who have preferences are more often satisfied with their care when their own physicians match their preferences. *Chen, FM, Fryer GE, Phillips RL, Wilson E,*

Pathman DE. Patients' beliefs about racism, preferences for physician race, and satisfaction with care. *Ann Fam Med* 2005; 3:138-143.

25. Medicare Part D: Practical and Policy Implications for Family Physicians

This editorial was an introduction to the Graham Center's three one-pager's on Medicare Part D. The piece addresses the need for family physicians to be aware of the implications of Medicare Part D prescription drug benefit and how it will affect their patients. With family physicians being the primary care givers to the older population in the US, they should be aware the Part D will help many but there could be a risk of patients going without medications. *Mallya G, Bazemore A. Medicare Part D: Practical and policy implications for family physicians. Am Fam Physician* 2006; 73:395-396.

26. Identification of Contrastive and Comparable School Neighborhoods for Childhood Obesity and Physical Activity Research

The neighborhood social and physical environments are considered significant factors contributing to children's inactive lifestyles, poor eating habits, and high levels of childhood obesity. Understanding of neighborhood environmental profiles is needed to facilitate community-based research and the development and implementation of community prevention and intervention programs. We sought to identify contrastive and comparable districts for childhood obesity and physical activity research studies. We applied GIS technology to manipulate multiple data sources to generate objective and quantitative measures of school neighborhood-level characteristics for school-based studies. We generated school neighborhood-level social and built environment indicators for all 412 Chicago public elementary school districts. The combination of GIS and cluster analysis allowed us to identify eight school neighborhoods that were contrastive and comparable on parameters of interest (land use and safety) for a childhood obesity and physical activity study. The combination of GIS and cluster analysis makes it possible to objectively characterize urban neighborhoods and to select comparable and/or contrasting neighborhoods for community-based health studies. *Zhang X, Christoffel KK, Mason M, Liu L. Identification of contrastive and comparable school neighborhoods for childhood obesity and physical activity research. Int J Health Geogr* 2006 Mar 30; 5:14.

27. International Medical Graduates in Family Medicine in the United States of America: An Exploration of Professional Characteristics and Attitudes

The number of international medical graduates (IMGs) entering family medicine in the United States of America has steadily increased since 1997. Previous research has examined practice locations of these IMGs and their role in providing care to underserved populations. To our knowledge, research does not exist comparing professional profiles, credentials and attitudes among IMG and United States medical graduate (USMG) family physicians in the United States. The objective of this study is to determine, at the time when a large influx of IMGs into family medicine began, whether differences existed between USMG and IMG family physicians in regard to personal and professional characteristics and attitudes that may have implications for the health care system resulting from the increasing numbers of IMGs in family medicine in the United States. This is a secondary data analysis of the 1996–1997 Community Tracking Study (CTS) Physician Survey comparing 2360 United States medical graduates and 366 international medical graduates who were nonfederal allopathic or osteopathic family physicians providing direct patient care for at least 20 hours per week. Compared to USMGs, IMGs were older ($p < 0.001$) and practiced in smaller ($p = 0.0072$) and younger practices ($p < 0.001$). Significantly more IMGs practiced in metropolitan areas versus rural areas ($p = 0.0454$). More IMG practices were open to all new Medicaid ($p = 0.018$) and Medicare ($p = 0.0451$) patients, and a greater percentage of their revenue was derived from these patients ($p = 0.0020$ and $p = 0.0310$). Fewer IMGs were board-certified ($p < 0.001$). More IMGs were dissatisfied with their overall careers ($p = 0.0190$). IMGs and USMGs did not differ in terms of self-rated ability to deliver high-quality care to their patients ($p = 0.4626$). For several of the clinical vignettes, IMGs were more likely to order tests, refer patients to specialists or require office visits than USMGs. There are significant differences between IMG and USMG family physicians' professional

profiles and attitudes. These differences from 1997 merit further exploration and possible follow-up, given the increased proportion of family physicians who are IMGs in the United States. *Morris AL, Phillips RL, Fryer GE, Green LA, Mullan F. International medical graduates in family medicine in the United States of America: An exploration of professional characteristics and attitudes. Human Resources for Health 2006;4:17.*

28. National Health Service Corps Staffing and the Growth of the Local Rural Non-NHSC Primary Care Physician Workforce

Beyond providing temporary staffing, National Health Service Corps (NHSC) clinicians are believed by some observers to contribute to the long-term growth of the non-NHSC physician workforce of the communities where they serve; others worry that NHSC clinicians compete with and impede the supply of other local physicians. To assess long-term changes in the non-NHSC primary care physician workforce of rural underserved counties that have received NHSC staffing support relative to workforce changes in underserved counties without NHSC support. Using data from the American Medical Association and NHSC, we compared changes from 1981 to 2001 in non-NHSC primary care physician to population ratios in 2 subsets of rural whole-county health professional shortage areas: (1) 141 counties staffed by NHSC physicians, nurse practitioners, and/or physician assistants during the early 1980s and for many of the years since and (2) all 142 rural health professional shortage area counties that had no NHSC clinicians from 1979 through 2001. From 1981 to 2001, counties staffed by NHSC clinicians experienced a mean increase of 1.4 non-NHSC primary care physicians per 10,000 population, compared to a smaller, 0.57 mean increase in counties without NHSC clinicians. The finding of greater non-NHSC primary care physician to population mean ratio increase in NHSC-supported counties remained significant after adjusting for baseline county demographics and health care resources ($P < .001$). The estimated number of "extra" non-NHSC physicians in NHSC-supported counties in 2001 attributable to the NHSC was 294 additional physicians for the 141 supported counties, or 2 extra physicians, on average, for each NHSC-supported county. Over the 20 years, more NHSC-supported counties saw their non-NHSC primary care workforces grow to more than 1 physician per 3,500 persons, but no more NHSC-supported than nonsupported counties lost their health professional shortage area designations. These data suggest that the NHSC contributed positively to the non-NHSC primary care physician workforce in the rural underserved counties where its clinicians worked during the 1980s and 1990s. *Pathman DE, Fryer GE, Phillips RL, Smucny J, Miyoshi T, Green LA. National health service corps staffing and the growth of the local rural non-NHSC primary care physician workforce. J Rural Health 2006; 22:285-293.*

29. Primary Care Physicians' Perceptions of the Effect of Insurance Status on Clinical Decision Making

Americans who do not have health insurance receive fewer health services and have poorer health status than those who have insurance. To better understand this disparity, in this study we characterize primary care physician's perceptions of what effect, if any, patients' insurance status has on their clinical decision making during office visits. Twenty-five physician members of CAPRICORN, a primary care practice-based research network in metropolitan Washington, DC, completed a brief paper-card survey instrument immediately after each patient encounter during 2 half-day office sessions. Participants saw patients in their usual manner and were given no additional information about their patients or their insurance. Eighty-eight percent of participating physicians reported making at least 1 change in clinical management as a result of a patient's insurance status. They reported altering their management during 99 of 409 patient encounters (24.2%). There was a significant difference in the percentage of visits that involved a change in management for privately insured, publicly insured, and uninsured patients (18.7%, 29.5%, and 43.5% respectively, $P = .01$). Physicians reported discussing insurance issues with patients during 62.6% of visits during which they made a change in management based on insurance status. Physicians incorporate their patients' insurance status into their clinical decision making and acknowledge they frequently alter their clinical management as a result. Additional research is needed to understand the effect of these changes on patient health and to assist both physicians and patients in enhancing the quality of care delivered within the constraints of the current insurance system. *David S. Meyers, MD, Ranit*

Mishori, MD, Jessica McCann, MA, Jose Delgado, MD, Ann S. O'Malley, MD and Ed Fryer, PhD. *Primary Care Physicians' Perceptions of the Effect of Insurance Status on Clinical Decision Making* *Annals of Family Medicine* 4:399-402 (2006)

30. Access, Health, and Wealth: The Impact of the National Health Service Corps in Rural America, 1970-2000

George E. Fryer, PhD, Jessica L. McCann, MA, Martey S. Dodoo, PhD, Larry A. Green, MD, Thomas Miyoshi, Robert L. Phillips, MD MSPH, *Access, Health, and Wealth: The Impact of the National Health Service Corps in Rural America, 1970-2000, September 2006. Available at <http://www.graham-center.org/x570.xml>*

31. The Canadian Contribution to the US Physician Workforce.

A physician shortage has been declared in both Canada and the United States. Bob Phillips and Stephen Petterson collaborated with George Fryer and Walter Rosser to examine the migration pattern of Canadian-trained physicians to the United States. Results showed that minimizing emigration, and perhaps recruiting physicians to return to Canada, could reduce physician shortages, particularly in subspecialties and rural areas. In light of competing physician shortages, it will be important to consider policy options that reduce emigration, improve access to care and reduce reliance on physicians from developing countries. Phillips RL, Petterson S, Fryer GE, Rosser W. *The Canadian contribution to the US physician workforce. Canadian Medical Association Journal* 2007; 176:8:1083-7.

32. Access Denied: A Look at America's Medically Disenfranchised

National Association of Community Health Centers and Robert Graham Center. *Access Denied: A Look at America's Medically Disenfranchised, 2007. Available at: <http://www.graham-center.org/x570.xml>*

33. Access Granted: The Primary Care Payoff

National Association of Community Health Centers, Robert Graham Center, and Capital Link. *Access Granted: The Primary Care Payoff, 2007. Available at: <http://www.graham-center.org/x570.xml>*

34. Nonemergency Medicine-Trained Physician Coverage in Rural Emergency Departments

Rural areas have fewer physicians compared to urban areas, and rural emergency departments often rely on community or contracted providers for staffing. The emergency department workforce is composed of a variety of physician specialties and clinicians. Purpose: To determine the distribution of emergency department clinicians and the proportion of care they provide across the rural-urban continuum. Methods: Cross-sectional analysis of secondary data. The distribution of clinicians who provide emergency department care by county was determined using the 2003 Area Resource File. The percentage of emergency department care provided by clinician type was determined using 2003 Medicare claims data. Logistic regression analyses assessed the odds of being seen by different clinicians with a patient's rurality when presenting to the emergency department. Findings: Board-certified emergency physicians provide 75% of all emergency department care, but only 48% for Medicare beneficiaries of the most rural of counties. The bulk of the remainder of emergency department care is largely provided by family physicians and general internists, with the percentage increasing with rurality. The likelihood of being seen by an emergency physician in the emergency department decreases 5-fold as rurality increases, while being seen by a family physician increases 7-fold. Conclusion: Nonemergency physicians provide a significant portion of emergency department care, particularly in rural areas. Medical specialties must cooperate to ensure the availability of high-quality emergency department care to all Americans regardless of physician specialty. Peterson LE, Dodoo M, Bennett KJ, Bazemore A, Phillips RL Jr. *Nonemergency medicine-trained physician coverage in rural emergency departments. J Rural Health.* 2008 Spring;24(2):183-8

Delivery and Scope of the Medical Home. The essential features of family medicine include its comprehensive scope, its continuity, and its emphasis on family and community health. The Future of Family Medicine Report calls for a medical home that has these features and can deliver a consistent set of services. Through its research, The Robert Graham Center seeks to clarify the functions of the medical home and how to support them.

1. Educating Doctors to Provide Counseling and Preventive Care: Turning Twentieth Century Professional Values Head Over Heels

Preventive care can obviate some of the need for medical care. Enabling doctors to deal with the different health care needs of future patients will require a values shift in medical education from a restricted emphasis on disease, specialization and treatment towards an emphasis on health, generalism in medicine, and prevention. In 1997, based on the National Ambulatory Medical Care Survey, in the United States most visits to physicians were for acute problems and care of a chronic problem, but a substantial minority (27%) involved prevention and counseling in the areas of diet or nutrition, exercise, HIV/STD transmission, contraception, prenatal care, breast examination, tobacco use, growth and development, stress management, skin cancer prevention, and injury prevention. These visits were scattered among all types of medical specialties with family physicians typically being the most or second most likely type of physician providing preventive services. The amount of time spent with a physician was directly associated with a greater likelihood that the visit included prevention activities (<10 minutes-20% of visits, 11-20 minutes-28% of visits, 21-30 minutes-29% of visits, >30 minutes-31% of visits). There is evidence that these calculations probably underestimate the frequency with which counseling and preventive care are provided by primary care physicians. They are consistent with other evidence that important preventive efforts can occur with a 1-2 minute investment. Overall, the level of preventive care and counseling is too little and almost certainly an area of opportunity for improved family practice and primary care. *Dovey S, Green L, Fryer GE. Educating doctors to provide counseling and preventive care: turning twentieth century professional values head over heels. Education for Health 2000;13:307-316.*

2. Taking Necessary Steps to Position US Health Care to be the Best

This paper reported World Health Organization findings about the costs and performance of national health care systems, pointing out the United States' embarrassing position as a high cost, low performance country. It called for an immediate commitment to universal inclusion and a usual source of care or a "medical home" for everyone as necessary steps in virtually any strategy the United States can take to improve its performance.

Green LA. Taking Necessary Steps to Position US Health Care to Be the Best. COSMOS 2001;11:17-20.

3. A Preface Concerning Keystone III

Keystone III was a structured conversation about family practice in the United States, held October 4-8, 2000, in Colorado Springs, Colorado and encouraged by the national family medicine organizations. It was inspired by prior influential conferences organized by G. Gayle Stephens at Keystone Colorado. Keystone III was organized by the Robert Graham Center, lead by the authors of this publication, and facilitated by the first scholar in residence at the Graham Center, Dr. Robert Graham. Some 30 years into the development of family medicine, Keystone III was designed to span generations of family physicians and to generate thoughtful reflection about the state of the discipline. Thirteen papers were commissioned to stimulate discussion at Keystone, and these papers were published as a special dedicated issue of Family Medicine. *Green LA, Graham R, Stephens GG, Frey JJ (The Keystone Quartet). A Preface Concerning Keystone III. Fam Med 2001;33:230-1.*

4. Keystone III. The Role of Family Practice in a Changing Health Care Environment: A Dialogue

Keystone III occurred in another of those times of proclamations of unprecedented change. This foreword provided some empirical evidence about the situation of family medicine at the beginning of the 21st century in terms of history, progress, incumbency, business, wealth, satisfaction, apprehension, optimism and despair. Family medicine was seen to be critically important but simultaneously, also insufficient. Green LA and Fryer GE. *The Context for Family Practice in 2000. Foreword. Keystone III. The Role of Family Practice in a Changing Health Care Environment: A Dialogue (pages 13-18). Washington DC: The Robert Graham Center, 2001.*

5. Keystone III. The Role of Family Medicine in a Changing Health Care Environment: A Dialogue

This book, published by the Robert Graham Center, assembled the commissioned papers, written reactions, small group discussions and commentary by rapporteurs and facilitators from the Keystone III Conference in Colorado Springs in October of 2000. It is the official conference proceedings. Among the results of Keystone III were the recognition of a natural synergy between family medicine and advocacy for universal coverage, the need to critically review and revise the current model of family practice, and the need to take action to transform both family practice and the wider health care system of the United States. A productive exchange among founding and new generations of family physicians was universally applauded. A renewed commitment to a broad scope of practice with excellence was confirmed. The spirit of the conference was partially captured by quotes from participants, such as, “Shoot, or give up the musket,” “If you can be replaced by a computer or a nurse practitioner, you deserve to be,” “Sacred cows make the best burgers,” and “You can pretend to know; you can pretend to care; but you can’t pretend to be there.” The Keystone III conference ignited the Future of Family Medicine Project, 2002-2003. Green LA, Graham R, Frey JJ, Stephens GG. *Keystone III. The Role of Family Medicine in a Changing Health Care Environment: A Dialogue. Washington, DC. The Robert Graham Center 2001.*

6. The View from 2020: How Family Practice Failed

This was one of the commissioned papers for Keystone III. It imagined a future in which family medicine became largely irrelevant for four reasons: It abdicated to others the hard work of responding to unmet needs of people; it went down as an incumbent specialty with the rest of the old medical paradigm; it chose to work on the wrong tasks; and it preferred to remain a cultural mutant rather than become part of the culture of the United States. Green LA. *The View from 2020: How Family Practice Failed. Fam Med 2001;33:320-4.*

7. Tailoring Tobacco Counseling to the Competing Demands in the Clinical Encounter.

Jaen CR, McIlvain H, Pol L, Phillips R, Flocke S, Crabtree B. *Tailoring tobacco counseling to the competing demands in the clinical encounter. Journal of Family Practice. 50(10);859-863. 2001 October.*

8. The Delicate Task of Workforce Determination

This editorial applauds the use of an explicit model to assess the adequacy of the physician workforce and agreed that the current challenge is less about producing a larger physician workforce and more about the distribution by specialty and deployment of the one we have. It focused on evidence showing best performance with integration of primary and secondary care specialties and suggested that workforce models may be used best to monitor and adjust policies, rather than to make definitive predictions. Dovey SM, Green LA, Phillips RL, Fryer GE. *The Delicate Task of Workforce Determination. Eff Clin Pract 2002;5:95-7.*

9. The Increase in International Medical Graduates in Family Practice Residency Programs

The percentage of international medical graduates (IMG’s) matching into family practice remained stable between 1992-1996 (10.0%-11.8%) but since 1997 has increased to 21.4% in 2001. This increase

accompanied a drop in the total percentage of family practice residency positions filled in the match from 90.5% in 1996 to 76.3% in 2001. In 1999, a majority of family practice residencies (279/55.6%) had at least one IMG. Of these, 48 had at least 50% of residents who were IMG's and 8 were composed entirely of IMG's. In Connecticut, Illinois, Michigan, New Jersey, and New York, more than 25% of family practice residents were IMG's. Family practice is becoming increasingly reliant on IMG's to fill residency positions. *Koehn NN, Fryer GE, Phillips RL, Miller JB, Green LA. The Increase in International Medical Graduates in Family Practice Residency Programs. Fam Med 2002;34:429-35.*

10. Making Choices about the Scope of Family Practice

Evaluating and debating what procedures should be taught and done are not new to the landscape of family practice and are made complex by family practice's commitment to comprehensive service. Hospital services and procedures are examples of areas in which family physicians make choices. In 2000, fewer than 2% of family physicians reported having involuntarily given up hospital privileges, but 12.4% of practicing family physicians reported having no desire for hospital privileges; and 84.5% of family physicians spanning all regions of the country reported being satisfied with the scope of their hospital privileges. Twenty seven percent had no desire to see patients in the emergency department, but 57.8% did; and 50.5% had no desire to do flexible sigmoidoscopy, but 29% did. This variation is driven by considerations of need, skill and training, payment, competing priorities, local politics and more. Decisions to include or exclude services from family practices are decisions to transfer costs and revenues, and these decisions may relieve or create shortages of services for patients. It is essential that decisions about the domain of family practice be grounded in assessments that move beyond protectionism and focus on how choices about the domain of family practice affect patients. At the extreme, if family physicians had withdrawn their services at the end of 1999, the number of US counties designated as health profession shortage areas would have grown from 864 to 2048, leaving some 50 million people outside metropolitan areas with new problems in accessing care. *Phillips RL and Green LA. Making Choices About the Scope of Family Practice. JABFP 2002;15:250-254.*

11. Can Nurse Practitioners and Physicians Beat Parochialism into Plowshares? A Collaborative Integrated Health Care Workforce Could Improve Patient Care

The nurse practitioner role was created in 1965 through joint efforts of Loretta Ford and Henry Silver, envisioned as a collaborative and collegial relationship with physicians. Nurse practitioners have evolved into a large and flexible workforce. Far too often, nurse practitioner and physician professional organizations do not work together but rather expend considerable effort jousting in policy arenas. Turf battles interfere with joint advocacy for needed health system change and delay development of interdisciplinary teams that could help patients. A combined, consistent effort is urgently needed for studying, training, and deploying a collaborative, integrated workforce aimed at improving the health care system of tomorrow. *Phillips RL, Harper DC, Wakefield M, Green LA, Fryer GE. Can Nurse Practitioners and Physicians Beat Parochialism into Plowshares? A collaborative integrated health care workforce could improve patient care. Health Affairs 2002;21:133-142.*

12. Family Practice in the United States: Position and Prospects

Family practice became the 20th US medical specialty in 1969. It has delivered on its promise to reverse the decline of general practice and care for people with diverse problems in all areas of the country. However, many important health care problems remain unsolved, in part because of poor role delineation for family physicians, poor differentiation of family practice from other fields, and insufficient change in the cultural and political environment of the US. Family practice remains conflicted internally, e.g. about relationships with other specialties, the knowledge requirements of family practice, and being a reform movement or an incumbent specialty. Family practice has spent much more effort on justification and less on assuring practical means to accomplish its work. There are important immediate opportunities to improve health and address important national policy issues by strengthening family practice. Seizing these opportunities depends in part on redesigning the family practice setting and its

financing, re-defining critical interactions with patients and other elements of the health care system, and fostering discovery. The next period of adaptation by family practice is already underway; this may be the first time in history that its ambitious aspirations are actually achievable. Family practice may belong no longer to those who conceived it—rather to those who can make it be that care the Institute of Medicine labeled “central and fundamental” and “the logical foundation of an effective health care system.” *Green LA and Fryer GE. Family Practice in the United States: Position and Prospects. Acad Med 2002;77:781-9.*

13. Family Practice in the United States: A Status Report

The percentage of physicians identifying themselves as general practitioners decreased from 79.2% in 1938 to 17.3% in 1970. In the 1960's, the Folsom, Millis and Willard reports all concluded that individuals should have access to qualified physicians who would treat them as individuals and not respond only to isolated disease or organ system dysfunction. They also agreed that the medical profession should train a new type of physician to provide a comprehensive scope of service for people of all ages, in continuing relationship with patients. This culminated in the establishment of new training programs and the new specialty, family practice. Radically, the new specialty required re-certification at 7-year intervals and did not automatically “grandfather” general practitioners into the specialty. Two growth periods occurred in family practice training programs, the first during the 1970's and the second in the last half of the 1990's, resulting in the year 2000 in 10,503 family practice residents in 472 programs, distributed in all 50 states. In 2000, The American Board of Family Practice had 60,612 current certificants, second in number only to the American Board of Internal Medicine; and family physicians were responsible for about 200 million of the 822 million patient visits to physicians, more than any other medical specialty. Sixty two percent of patients who indicated they had an individual practitioner as a usual source of care cited a family physician. These family physicians managed a broad spectrum of problems, referring patients to other health care providers at about 6% of visits. About 29% of family physicians were women, and about 47% of family practice residents in training were women. The distribution of these family physician closely paralleled the distribution of the US population, e.g. 21% of family practice graduates were located in rural areas where 20% of the US population resides. Unfortunately, the central tenets of family practice-comprehensiveness, coordination, continuity, and patient focus—are often in conflict with the highly fragmented pattern of care in the current system, and many academic centers continue to resist the development of family practice and primary care. Nonetheless, the vision of a specialty of breadth, competent in comprehensive care has been largely realized. *Graham R, Roberts RG, Ostergaard DJ, Kahn NB, Pugno PA, Green LA. Family Practice in the United States: A Status Report. JAMA 2002;288:1097-1101.*

14. General Internists and Family Physicians: Partners in Geriatric Medicine?

This invited editorial affirmed the basic thrust of a series of articles by internists lamenting the nation's lack of preparedness to deal with the health care needs of older patients. It quantified the dominant role of family physicians and general internists in the care of geriatric patients 75 years of age and older. Together these 2 physician groups accounted for 45.3% (24.5% to internists and 20.8% to family physicians) of all visits made by these patients to physicians' offices and most of the visits made for prevalent chronic diseases such as heart failure and diabetes. It then linked family medicine and internal medicine as necessary partners to meet the nation's needs and challenged the two disciplines to forget rivalry and cultivate cooperation. *Mold JW, Green LA, Fryer GE. General internists and family physicians: Partners in geriatric medicine? Ann Intern Med 2003;139:594-96.*

15. Report of Task Force on Patient Expectations, Core Values, Reintegration and the New Model of Family Medicine

Task Force 1 was chaired and supported by the staff of the Center. This task force report was written collaboratively at the Center, and most of it was incorporated into the final report of the Future of Family Medicine Project, comprising approximately the first half of the final report and a large majority of the supporting references. This citation includes additional analyses and confirms simultaneously the current

reliance of the United States on Family Physicians, the continuing desire of the public for what it is that family physicians strive to do, and the toxic environment that may make family medicine and primary care untenable in a 10 to 20 year time frame. *Task Force 1. Report of Task Force on Patient Expectations, Core Values, Reintegration and the New Model of Family Medicine. Ann Fam Med 2004;2:S33-S50.*

16. The New Model of Primary Care: Knowledge Bought Dearly

After assembling evidence about the effects of primary care and concluding that they are overwhelmingly salutary, this paper developed possible options that could enable improved primary care practice specifically through the implementation of payment methods focused on the integration of care for individuals and the management of chronic conditions. There must be a business plan undergirding family medicine and primary care that rewards producing value and through which revenues can exceed expenses. *Phillips RL, Green LA, Fryer GE, McCann J. The new model of primary care: knowledge bought dearly. Policy Paper prepared for AAFP Board of Directors, adopted March 12, 2004. Available at: <http://www.graham-center.org/x570.xml>*

17. Overcoming Obstacles in US Health Care Delivery with a New Practice Model for Family Practice.

This invited commentary highlights some of the hurdles and obstacles that have hindered physicians in the delivery of health care and present brief summaries of some proposals currently being discussed to overcome them. Despite brisk advances in science and technology and a bounty of medical knowledge, tools, and techniques to enhance patient care, US physicians still labor daily to provide the highest quality care to their patients at reasonable cost. They struggle against a complex collection of economic and business hurdles and obstacles imposed by the health care system. These challenges have made the current system unworkable for many physicians. Policy analysts have argued that the system cannot continue this way for much longer and have speculated that health care service delivery in the US will soon become a crisis unless it undergoes a major overhaul. *Dodoo MS and Bazemore A. Overcoming obstacles in US health care delivery with a new practice model for family practice. Virtual Mentor. 2005;7(6).*

18. Cost-Effective Roles for Nurse Practitioners in Secondary Prevention

A study by Raftery et al on a cost-effectiveness of nurse-led secondary prevention for coronary heart disease offers evidence for an enhanced nursing role in primary care, but the differing locations of the cost and the savings may make implementation difficult in the US. This is not a study about disease management or pay-for-performance, however it is central to the need to find ways to improve secondary preventive care and supports an increased focus on team-based care that is patient-centered and breaks free from physician visits as the locus of care. *Phillips RL, McCann J. Cost-effective roles for nurse practitioners in secondary prevention. BMJ, Jun 2005; 330: E357 - E358.*

19. UK Lessons for US Primary Care

This commentary was published on the North American Primary Care Research Group (NAPCRG) pages of the *Annals of Family Medicine*. Drs. Dodoo and Green meet with the National Primary Care Research and Development Centre in Manchester, England to discuss the redesign of primary care in both countries. The primary purpose of the visit was to discuss GP compensation and the quality framework for GPs in the context of the new GP contract. This commentary provides six conclusions of what Drs. Dodoo and Green learned. *Dodoo M, Roland M, Green LA. UK Lessons for US primary care. Ann Fam Med 2005; 3:561-562.*

20. Characteristics of Smoking Cessation Guideline Use by Primary Care Physicians.

Longo DR, Stone TT, Phillips RL, Everett KD, Kruse RL, Jaen CR, Hewett JE. Characteristics of smoking cessation guideline use by primary care physicians. Mo Med. 2006 Mar-Apr;103(2):180-4.

21. Family Physicians in the Child Health Care Workforce: Opportunities for Collaboration in Improving the Health of Children

Pediatric workforce studies suggest that there may be a sufficient number of pediatricians for the current and projected U.S. child population. These analyses do not fully consider the role of family medicine in the care of children. Family physicians provide 16% to 26% of visits for children, providing a medical home for one-third of the child population, but face shrinking panels of children. Family medicine's role in children's health care is more stable in rural communities, for adolescents, and for underserved populations. For these populations, in particular, family medicine's role remains important. The erosion of the proportion of visits to family medicine is likely caused by the rapid rise in the number of pediatricians relative to a declining birth rate. Between 1981 and 2004, the general pediatrician population grew at 7 times the rate of the U.S. population, and the family physician workforce grew at nearly 5 times the rate. The number of clinicians caring for children meets or exceeds most estimates of sufficiency; however, the workforce distribution is skewed, leaving certain populations and settings underserved. More than 5 million children and adolescents live in counties with no pediatrician. Unmet need, addressing health in the context of families and communities, and tackling "millennial morbidities" represent common ground for both specialties that could lead to specific, collaborative training, research, intervention, and advocacy. Phillips RL, Bazemore AW, Dadoo MS, Shipman SA, Green LA. *Family physicians in the child health care workforce: Opportunities for collaboration in improving the health of children. Pediatrics* 2006;118:1200-1206.

22. The Patient Centered Medical Home: History, Seven Core Features, Evidence and Transformational Change

The Robert Graham Center for Policy Studies in Family Medicine and Primary Care. The Patient Centered Medical Home: History, Seven Core Features, Evidence and Transformational Change. November 2007. Available at <http://www.grahamcenter.org/x570.xml>

23. Practice Based Research Networks. The Learning Healthcare System

Phillips RL Jr, Mold J, Peterson K. Practice Based Research Networks. The Learning Healthcare System. Workshop Summary (IOM Roundtable on Evidence-Based Medicine). Olsen L, McGinnis JM Eds. National Academies Press (Washington, DC). 2007

Healthcare Quality and Safety. The United States must refocus on the delivery of safe, high quality healthcare, a lesson made clear in the Institute of Medicine reports "To Err is Human" and "Crossing the Quality Chasm.." Nowhere is this more critical than within the primary care setting, where most Americans receive the majority of their healthcare. Through its research, The Robert Graham Center seeks to reduce threats to patient safety and improve quality of healthcare.

1. Shortchanging Adolescents: Room for Improvement in Preventive Care by Physicians

Behaviors developed in adolescence influence health later in life. During a 3 year period from 1995-1997, adolescents accounted for fewer than 5% of visits to physicians. Of these visits, 43.5% were attended by family physicians and pediatricians. Counseling about any of seven important health-related behaviors occurred in only 15.8% of visits to family physicians and only 21.6% of visits to pediatricians. Both family physicians and pediatricians have room for improvement. *Merenstein D, Green LA, Fryer GE, Dovey SM. Shortchanging Adolescents: Room for Improvement in Preventive Care by Physicians. Fam Med 2001;33: 120-3.*

2. Family Physicians' Experiences of their Fathers' Health Care

This study obtained expert observations and reports from senior family physicians to characterize the health care received by their fathers with life-threatening or fatal diseases. It revealed deficiencies and problems with care that compelled intervention by sons and daughters who happened to be very experienced physicians. Even with their interventions, many times appropriate care remained illusive. This study made obvious an unmet need for integration of care, a sophisticated function that should be an important element in the scope of practice of many family physicians. This article further revealed the importance of a national, long-term commitment to improving the quality of care and reducing errors. It was the basis of a half-page story in the New York Times. *Chen FM, Rhodes LA, Green LA. Family Physicians' Experiences of Their Fathers' Health Care. J Fam Pract 2001;50:762-766.*

3. Sleeping Position Used by Newborn Nurseries in Missouri: 1992-1999

Delzell J, Phillips R, Schnitzer P, Ewigman B. Sleeping Position Used by Newborn Nurseries in Missouri: 1992-1999. Journal of Family Practice. 2001;50 (5): 488.

4. Does Career Dissatisfaction Affect the Ability of Family Physicians to Deliver High-Quality Patient Care?

The proportion of family physicians dissatisfied with their overall medical careers (17.3%) was similar to that of physicians in other specialties (18%), less than general internists (20.6%) and more than pediatricians (12.6%). While only 1 in 10 family physicians younger than 35 years of age was dissatisfied, 1 in 4 of those 55-64 years of age were dissatisfied. The strongest factors associated with dissatisfaction of family physicians were not personal or practice characteristics or income, but perceptions they had about their inability to take good care of their patients, e.g. having the freedom to make clinical decisions that met their patients' needs and the ability to maintain continuing relationships with their patients. Dissatisfaction with career was significantly associated with important policy objectives. Specifically, family physicians dissatisfied with their careers were less willing to accept and care for Medicare and Medicaid patients *DeVoe J, Fryer GE, Hargraves JL, Phillips RL, Green LA. Does Career Dissatisfaction Affect the Ability of Family Physicians to Deliver High-Quality Patient Care? J Fam Pract 2002;51:223-228.*

5. An International Taxonomy for Errors in General Practice: A Pilot Study

The Primary Care International Study of Medical Errors is the first international study of medical errors in family practice. Organized by the Graham Center, it involved six countries and produced a draft 5-level taxonomy of errors. The classification of errors first categorized errors into process errors (80%) and knowledge and skill errors (20%). Patient harm was reported for 30% of the error reports. These distributions from the entire study were almost identical to the Australian experience, suggesting that errors are likely to affect primary care patients in similar ways in countries with similar primary health care systems. This study was featured in WONCA News, the official publication of the World Organization of Family Doctors. *Makeham MAB, Dovey SM, County M, Kidd MR. An International Taxonomy for Errors in General Practice: A Pilot Study. Med J Australia 2002;177:68-72.*

6. A Preliminary Taxonomy of Medical Errors in Family Practice

Family physicians in the American Academy of Family Physicians' national practice based research network reported errors they observed in their daily practice through a secure, encrypted, electronic reporting system. A preliminary taxonomy was developed to permit organizing errors in family practice in a way that facilitated study and understanding sufficient to improve care. Medical errors in family practice differed from those reported by hospitals and affected patients from all demographic groups. Once classified, 83% of the reported errors arose from health care systems dysfunction, 13% were errors due to gaps in knowledge or skills, and the remainder were actually adverse events, not errors. The main subcategories were: administrative failures (31%), investigation failures (25%), treatment delivery lapses (23%), miscommunication (6%), a mistake in executing a clinical task (6%), wrong treatment decision (4%), and wrong diagnosis (4%). Errors that some might consider trivial sometimes harmed patients, even resulting in death. The scope of investigation needed to address errors in family practice is broad and ripe for exploration. *Dovey SM, Meyers DS, Phillips RL, Green LA, Fryer GE, Galliber JM, Kappus J, Grob P. A Preliminary Taxonomy of Medical Errors in Family Practice. Qual Saf Health Care 2002;11:233-238.*

7. Classification of Medical Errors and Preventable Adverse Events in Primary Care: A Synthesis of the Literature

A systematic search from 1965 through March of 2001 yielded four original research studies about medical errors and adverse events in primary care and three others peripherally addressing primary care medical errors. Within these studies, three main categories of preventable adverse events were identified: diagnosis, treatment, and preventive services. Process errors seeking to identify why things went wrong could be grouped into four categories: clinician, communication, administration, and a group labeled "blunt end factors," including, for example, government and insurance regulations. Missing are studies that determine the prevalence of preventable adverse events and errors in primary care and that have patient, consumer, and/or other health care provider input. *Elder NC and Dovey SM. Classification of Medical Errors and Preventable Adverse Events in Primary Care: A synthesis of the literature. J Fam Pract 2002;51:927-932.*

8. Patients' Rights in the United States

Based on experience in Washington at the Graham Center, this New Zealander characterized considerations of a "patient's bill of rights" as intended to give health plans their "comeuppance," with relatively little to do with what others might view as core rights of patients. It seemed "upside-down" to him to witness an approach that reinforced an "us versus them" mindset, rather than a united commitment to deliver appropriate health care. *Gauld R. Patients' Rights in the United States: From "Down-under" the Situation Seems Upside-Down. NZ Med J 2002;115:55-6.*

9. Mapping Tools for Monitoring the Safety Net.

Phillips RL, Bazemore A, Miyoshi TJ. Mapping tools for monitoring the safety net. In Monitoring the Health Care Safety Net: Book III: Tools for Monitoring the Health Care Safety Net. Weinick RM, Billings J (Eds). Agency for Healthcare Research and Quality. Rockville, MD. 2003. AHRQ Publication No 03-0027

10. Specialist Physicians Providing Primary Care Services in Colorado

There is overlap in the work of different types of physicians, but no fully adequate way to quantify specialty care provided by primary care physicians and primary care by specialty physicians to aid judgments about adequate access to different types of services. This manuscript used state-based data collected by the board licensing physicians to estimate how much primary care is provided by specialists. Almost half of the state's specialists reported providing primary care services, and as a group about 28% of specialists' direct patient care time was devoted to primary care activities. This analysis could not evaluate important elements of primary care, e.g. integration of care and sustained partnerships. Nonetheless, the contribution of specialists should be considered in needs assessments, and specialists who experience low demand for their particular specialties may be especially inclined to "fill up their practice" with services typically provided in primary care. How well specialists function as primary care providers remains uncertain. Fryer GE, Consoli R, Miyoshi TJ, Dovey SM, Phillips RL, Green LA. *Specialist physicians providing primary care services in Colorado*. *J Am Board Fam Pract* 2004;17:81-90.

11. Splitting the Difference—Patient Preference vs Conservation of Resources.

This invited commentary linked clinical decision-making, allocation decisions, and macro-level health policy to illuminate at least 2 ethical issues in a case presentation concerning a depressed patient: the right of the patient to accept or refuse treatment and the responsibility to marshal community resources wisely. It also brought into clear view the need to weigh short term financial gains against possibly larger, later losses when trust and successful care plans are fractured. Phillips RL. *Splitting the Difference—Patient Preference vs Conservation of Resources*. *Commentary*. *Virtual Mentor*. *Ethics Journal of the American Medical Association*. June 2004, Volume 6. www.ama-assn.org/ama/pub/categor/12469.html.

12. Learning From Malpractice Claims about Negligent, Adverse Events in Primary Care in the United States

This report used the Physician Insurers Association of America's malpractice claims data for negligent adverse events from 1985-2000 to offer useful insight into errors in primary care. Honing in on peer-reviewed claims assessed as negligent, it was found that 68% of claims were for negligent events in outpatient settings, with no single condition accounting for more than 5% of all negligent claims. When standardized to frequency of conditions in the outpatient setting, new insights about error and risk in primary care emerged, e.g. appendicitis was 25 times more likely to generate a claim for negligence than breast cancer. Even with the considerable limitations of this malpractice data set, new insights about the nature of error in family medicine and primary care were discovered, continuing the Center's ongoing commitment to helping make care safer in the primary care setting. Phillips RL, Bartholomew LA, Dovey SM, Freyer GE, Miyoshi TJ, Green LA. *Learning from malpractice claims about negligent, adverse events in primary care in the United States*. *Qual Saf Health Care* 2004;13:121-126.

13. A String of Mistakes: The Importance of Cascade Analysis in Describing, Counting, and Preventing Medical Errors

Notions about the most common errors in medicine currently rest on conjecture and weak epidemiologic evidence. This study sought to determine whether cascade analysis is of value in clarifying the epidemiology and causes of errors and whether physician reports are sensitive to the impact of errors on patients. Woolf SH, Kuzel AJ, Dovey SM, Phillips RL. *A string of mistakes: The importance of cascade analysis in describing, counting, and preventing medical errors*. *Ann Fam Med* 2004;2:318-327.

14. The Continuity of Care Record

This invited editorial discussing the benefit of having a continuity of care record (CCR). The CCR is a document standard for basic health information, using XML (extensible mark-up language). It is being developed jointly by ASTM International, the Massachusetts Medical Society, the Health Information Management and Systems Society, the American Academy of Pediatrics, and the American Academy of Family Physicians. The CCR is intended to foster and improve continuity of patient care, reduce medical

errors, increase patients' roles in managing their health, enable epidemic monitoring and public health research, and ensure at least a minimum standard of secure health information transportability. It is not an electronic health record or proprietary software. It is compatible with other efforts to standardize health information systems and can actually work across these efforts. *Kibbe DC, Phillips RL, Green LA. The continuity of care record. Am Fam Physician 2004; 7:1220-1223.*

15. Avoiding and Fixing Medical Errors in General Practice

This study looks at how to report tactics for avoiding and remedying medical errors observed by general practitioners in New Zealand and five other countries. The Primary Care International Study of Medical Errors collected 66 reports of medical errors in New Zealand and 363 reports from general practitioners in Australia, Canada, England, the Netherlands, and the United States. Strategies for avoiding and overcoming errors were grouped by themes, for New Zealand and the five other countries combined. General practitioners' medical errors reports suggest a culture of individual blame is more evident than recognized need for systems design. Error reporting systems may be a practical way to generate innovative solutions to potentially harmful problems facing general practice patients. *Tilyard M, Dovey SM, Hall K. Avoiding and fixing medical errors in general practice: Prevention strategies reported in the Linnaeus Collaboration's Primary Care International Study of Medical Errors. New Zealand Medical Journal 2005; 118(1208)U1264.*

16. Developing and Using Taxonomies of Errors. Patient Safety: Research Into Practice

Hickner J, Dovey S, Phillips R. Developing and using taxonomies of errors. Patient Safety: Research Into Practice. Open University Press (Manchester). 2005

17. The AAFP Patient Safety Reporting System: Needed Bridges for the Next Chasms in Patient Safety. Advances in Patient Safety: From Research to Implementation

Phillips RL, Dovey SM, Hickner JS, Graham D, Johnson M. The AAFP Patient Safety Reporting System: Needed bridges for the next chasms in patient safety. Advances in Patient Safety: From Research to Implementation. Agency for Healthcare Research and Quality, Department of Defense. Washington, DC, 2005.

18. The US Medical Liability System: Evidence for Legislative Reform

Despite state and federal efforts to implement medical malpractice reform, there is little evidence on which to base policy decision. This study uses data collected in the National Practitioner Data Bank for the period of 1999 to 2001 as a means to evaluate the effects of previous malpractice tort reforms on malpractice payouts and premiums. For every state and the District of Columbia, claims data were analyzed for number of malpractice awards, total amount paid, and average payment. Premiums were assessed for three specialties (ObGyn, Surgery, internal medicine) using premium reports for each state. The reforms most associated with lower payments and premiums were total and non-economic damage caps. Mean payments were 26% lower in states with total damage caps and 22% less in states with non-economic damage caps. *Guirguis-Blake J, Fryer GE, Phillips RL, Szabat R, Green LA. The US medical liability system: Evidence for legislative reform. Ann Fam Med 2006; 4:240-246.*

19. Learning From Different Lenses: Reports of Medical Errors in Primary Care Clinicians, Staff, and Patients.

The American Academy of Family Physicians National Research Network tested whether family doctors, office staff, and patients reported medical errors, and if so, the differences in how and what was reported. This research found that clinicians and staff offer different and independently valuable lenses for understanding errors and their outcomes in primary care, but both predominantly reported process- or system-related errors. There is a clear need to find more effective ways to invite patients to report on errors or adverse events. Furthermore, these findings suggest that patient safety organizations authorized by recent legislation should invite reports from a variety of health care workers and staff. *Phillips RL, Dovey SSM, Graham D, Elder NC, Hickner JM. Learning from different lenses: Reports of medical errors in primary*

care clinicians, staff, and patients. *A project of the American Academy of Family Physicians National Research Network. J Patient Safety* 2006; 2:140:146.

20. Training on the Clock: Family Medicine Residency Directors' Responses to Resident Duty Hours Reform

The Accreditation Council for Graduate Medical Education's 2003 restrictions on resident duty hours (RDH) raised concerns among educators about potential negative impacts on residents' training. The authors surveyed family medicine (FM) residency program directors (PDs) for their perceptions of the impact of RDH regulations on training in primary care. **METHOD:** All PDs of 472 FM residency programs were asked via list-serve to complete an anonymous Internet-based survey in the fall of 2004. Descriptive and qualitative analyses were conducted. Effects of the RDH regulations are varied. Fifty percent of FMPDs report increased patient-care duties for attendings, whereas 42% report no increase. Nearly 80% of programs hired no additional staff. Sixty percent of programs eliminated postcall clinics, and nearly 40% implemented a night-float system. Administrative hassles and losses of professionalism, educational opportunity, and continuity of care were common concerns, but a sizeable minority feel that residents will be better off under the new regulations. Many FMPDs cited increased faculty burden and the risk of lower-quality educational experiences for their trainees. Innovations for increasing the effectiveness of teaching may ultimately compensate for lost educational time. If not, alternatives such as extending the length of residency must be considered. *Peterson LE, Johnson H, Pugno PA, Bazemore A, Phillips RL. Training on the clock: Family medicine residency directors' responses to resident duty hours reform. Acad Med* 2006; 81:1032-1037.

21. How Well do Family Physicians Manage Skin Lesions?

Little is known about the epidemiology of new skin lesions seen in primary care. Stephen Petterson and Bob Phillips collaborated with Dan Merenstein, David Meyers, Alex Krist, Jose Delgado, and Jessica McCann to determine the percentage of the skin lesions that improved after evaluation by family physicians. Secondly, the team sought to determine patient satisfaction with their care, as well as diagnostic concordance between family physicians and dermatologists in diagnosing and treating skin lesions. The study demonstrated that most skin lesions seen by office-based family physicians resolve within three months, patients are generally satisfied with the care they receive, and the diagnostic and treatment decisions made by primary care physicians are not significantly different from those of their dermatologic colleagues. *Merenstein D, Meyers D, Krist A, Delgado J, McCann J, Petterson S, Phillips RL. How well do family physicians manage skin lesions? J Fam Prac* 2007; 56:40-45.

22. Congruent Satisfaction: Is there Geographic Correlation Between Patient and Physician Satisfaction?

Satisfaction among both physicians and patients is optimal for the delivery of high-quality healthcare. Although some links have been drawn between physician and patient satisfaction, little is known about the degree of satisfaction congruence among physicians and patients living and working in geographic proximity to each other. The Graham Center collaborated with Jennifer DeVoe, George E. Fryer, Alton Straub, Jessica McCann, and Gerry Fairbrother to identify patients and physicians from similar geographic sites and to examine how closely patients' satisfaction with their overall healthcare correlates with physicians' overall career satisfaction in each selected site. The study indicated that despite geographic variation, there is a strong correlation between physician and patient satisfaction living in similar geographic locations. Further analysis of this congruence and examination of areas of incongruence between patient and physician satisfaction may aid in improving the healthcare system. *DeVoe J, Fryer GE, Straub A, McCann J, Fairbrother G. Congruent satisfaction: Is there geographic correlation between patient and physician satisfaction? Med Care* 2007; 1:88-94.

23. The Healthcare Policy Context. ABC of Patient Safety

Phillips RL. The Healthcare Policy Context. ABC of Patient Safety. Sandars J, Cook G Eds. Blackwell BMJ Books (Oxford). 2007

Graham Center One-Pagers. One-Pagers offer succinct summaries of research pertinent to family medicine advocacy. These documents are distributed to congressional staff, AAFP leaders and staff, other family medicine leaders and chapter executives. The One-Pagers are also published in *American Family Physician*.

1. Introducing AAFP Policy Center One-Pagers

Wright J. *Introducing AAFP Policy Center One-Pagers. Am Fam Physician 2000; 62:19.*

2. The Effect of Accredited Rural Training Tracks on Physician Placement

Accredited family practice rural training tracks place their graduates in rural settings at very high rates: 76% overall and 88% among programs implemented in the last ten years. Favorable, immediate results could be expected from their continuation and expansion, permitted by adjustments in the Balanced Budget Act of 1997. Fryer GE, Dovey SM, Green LA. *The Effect of Accredited Rural Training Tracks. Am Fam Physician 2000;62:22.*

3. The Importance of Having a Usual Source of Health Care

Most people (82%) in the United States have and use for much of their health care a usual source of care, and a majority of them name a particular primary care physician as that source. Regardless of self-reported health status, people benefit from having a usual source of health care even if they are uninsured. Fryer GE, Dovey SM, Green LA. *The importance of having a usual source of health care. Am Fam Physician 2000;62:477.*

4. The Importance of Primary Care Physicians as the Usual Source of Healthcare in the Achievement of Prevention Goals

Having a usual source of care enhances achieving clinical prevention goals for both children and adults. There is room for improvement, and differences between the practices of internists and family physicians suggest that slightly longer visits and having health insurance might contribute to achieving proven prevention strategies. Fryer GE, Dovey SM, Green LA. *The importance of primary care physicians as the usual source of healthcare in the achievement of prevention goals. Am Fam Physician 2000;62:1968.*

5. The United States Relies on Family Physicians, Unlike Any Other Specialty

Designation of a county as a Primary Care Health Personnel Shortage Area (PCHPSA) depends on the number of primary care physicians practicing there. Without family physicians, an additional 1332 of the United States' 3082 urban and rural counties would qualify for designation as primary care HPSAs. This contrasts with an additional 176 counties that would meet the criteria for designation if all internists, pediatricians and ob/gyns in aggregate were withdrawn. Fryer GE, Dovey SM, Green LA. *The United States relies on family physicians, unlike any other specialty. Am Fam Physician 2001;63:1669.*

6. Toxic Cascades: A Comprehensive Way to Think About Medical Errors

Current thinking about threats to patient safety caused by medical errors is often focused in hospital on the immediate consequences of mistakes that affect specific aspects of care, such as testing procedures or medications. Some mistakes, however, become apparent distant from where they were committed and only after a lapse in time. The model of a toxic cascade organizes an approach to making U.S. health care safer for patients by locating upstream sources and downstream consequences of errors within a comprehensive, multilevel scheme. Dovey, SM, Fryer GE, Green LA,

Phillips RL. *Toxic cascades. A comprehensive way to think about medical errors. Am Fam Physician* 2001;63:847.

7. The Patient Safety Grid: Toxic Cascades in Health Care Settings

The Patient Safety Grid shows the fields where action is necessary in a comprehensive national effort to reduce harm from medical errors. Each segment of the grid is important and connected to others, sometimes forming a toxic cascade. *Dovey SM, Fryer GE, Green LA, Phillips RL. The Patient safety grid. Toxic cascades in health care settings. Am Fam Physician* 2001;63:1047.

8. Uncoordinated Growth of the Primary Care Workforce

Family physicians, nurse practitioners and physician assistants are distinctly different in their clinical training, yet they function interdependently. Together, they represent a significant proportion of the primary care work force. Training capacity for these three professions has increased rapidly over the past decade, but almost no collaborative work force planning has occurred. *Phillips RL, Green LA, Fryer GE, Dovey SM. Uncoordinated Growth of the Primary Care Workforce. Am Fam Physician* 2001 64:1498.

9. Trumping Professional Roles: Collaboration of Nurse Practitioners and Physicians for a Better U.S. Health Care System

Professional turf battles have yielded variations in the scope of practice for nurse practitioners (NPs) obstructing collaboration with physicians that would enhance patient care. Patients would be better served if NPs and physicians worked together to develop better combined models of education and service that take advantage of the benefits of both professions' contributions to care. *Phillips RL, Green LA, Fryer GE, Dovey SM. Trumping Professional Roles: Collaboration of Nurse Practitioners and Physicians for a Better U.S. Health Care System. Am Fam Physician* 2001;64:1325.

10. The Contemporary Ecology of US Medical Care Confirms the Importance of Primary Care

More women, men, and children receive medical care each month in the offices of primary care physicians than any other professional setting. There is an urgent need for health policies that encourage further innovation and implementation of first-rate primary care for everyone. *Green LA, Fryer GE, Dovey SM, Phillips RL. The Contemporary Ecology of US Medical Care Confirms the Importance of Primary Care. Am Fam Physician* 2001;64:928.

11. What Physicians Need to Know About Seniors and Limited Prescription Benefits and Why

More and more often, seniors are faced with outpatient prescription benefits that have annual spending limits and may be forced to cut back on use of medications when they run out of benefits before the end of the year. Family physicians can play a valuable role by helping seniors choose the best value medications for their budgets and by checking whether or not seniors can afford their prescriptions. *Chien-Wen T, Phillips RL, Green LA, Fryer GE, Dovey SM. What Physicians Need to Know About Seniors and Limited Prescription Benefits, and Why. Am Fam Physician* 2002;66:212.

12. Title VII Funding is Associated with More Family Physicians and More Physicians Serving the Underserved

Title VII funding of departments of family medicine at U.S. medical schools is significantly associated with expansion of the primary care physician workforce and increased accessibility to physicians for the residents of rural and underserved areas. Title VII has been successful in achieving its stated goals and has had an important role in addressing U.S. physician workforce policy issues. *Meyers D, Fryer GE, Krol D, Phillips RL, Green LA, Dovey SM. Title VII funding is associated with more family physicians and more physicians serving the underserved. Am Fam Physician* 2002; 66:554.

- 13. Family Physicians are the Main Source of Primary Health Care for the Medicare Population**
Of people 65 years and older who reported an individual provider as their usual source of health care, 60 percent identified a family physician or general practitioner. The Medicare population relies heavily on family physicians. *Mold JW, Phillips RL Jr., Dovey SM, Green LA. Family physicians are the main source of primary health care for the Medicare population. Am Fam Physician 2002;66:2032.*
- 14. Family Physicians' Declining Contribution to Prenatal Care in the United States**
There has been a substantial decline in prenatal care by family physicians over the past 20 years in all geographic regions of the country. Even so, during the past two decades, FP/GPs have provided over two million prenatal visits per year. As the field re-explores future scope, it should consider the erosion of the provision of prenatal care, its effect on the U.S. population and the specialty, and possibilities for revitalization of prenatal care in residency curricula and practice. *Guirguis-Blake J, Fryer GE, Deutchman M, Green LA, Dovey SM, Phillips RL. Family physicians' declining contribution to prenatal care in the United States. Am Fam Physician 2002;66:2192.*
- 15. Family Physicians Increase Provision of Well-Infant Care Despite Decline in Prenatal Services**
Over the past 20 years, both FP/GPs and pediatricians have upheld their commitment to preventive care for infants. Non-Metropolitan Statistical Areas (non-MSAs) depend on family physicians for almost half of their well-infant care. In fact, FP/GPs have increased their overall provision of well-infant care despite a decline in delivery of prenatal services. This commitment to child health care demands continued excellence of FP training in pediatric medicine, preventive care, and child advocacy. *Guirguis-Blake J, Fryer GE, Green LA, Dovey SM, Phillips RL. Family physicians increase provision of well-infant care despite decline in prenatal services. Am Fam Physician 2002;67:17.*
- 16. Types of Medical Errors Commonly Reported by Family Physicians**
In a group of studies about medical errors in family medicine, the five error types most often observed and reported by U.S. family physicians were: (1) errors in prescribing medications; (2) errors in getting the right laboratory test done for the right patient at the right time; (3) filing system errors; (4) errors in dispensing medications; and (5) errors in responding to abnormal laboratory test results. "Errors in prescribing medications" was the only one of these five error types that was also commonly reported by family physicians in other countries. *Dovey, SM, Phillips RL, Green LA, Fryer GE. Types of medical errors commonly reported by family physicians. Am Fam Physician 2003;67:697.*
- 17. Consequences of Medical Errors Observed by Family Physicians**
In two studies about medical errors, family physicians reported health, time, and financial consequences in nearly 85 percent of their error reports. Health consequences occurred when the error caused pain, extended or created illness, or placed patients, their families, and others at greater risk of harm. Care consequences included delayed diagnosis and treatment (sometimes of serious health conditions such as cancer), and disruptions to care that sometimes even resulted in patients needing care in a hospital. Other important consequences were financial and time costs to patients, health care providers, and the health system generally. However, sometimes no consequence was apparent. *Dovey, SM, Phillips RL, Green LA, Fryer GE. Consequences of medical errors observed by family physicians. Am Fam Physician 2003;67:915.*
- 18. Family Physicians' Solutions to Common Medical Errors**
In two U.S. studies about medical errors in 2000 and 2001, family physicians offered their ideas on how to prevent, avoid, or remedy the five most often reported medical errors. Almost all reports (94 percent) included at least one idea on how to overcome the reported error. These ideas ranged from "do not make errors" (34 percent of all solutions offered to these five error types) to more thoughtfully proposed solutions relating to improved communication mechanisms (30 percent) and

ways to provide care differently (26 percent). More education (7 percent) and more resources such as time (2 percent) were other prevention ideas. *Dovey SM, Phillips RL, Green LA, Fryer GE. Family physicians' solutions to common medical errors. Am Fam Physician 2003;67:1168.*

19. Family Physicians Are an Important Source of Mental Health Care

While comprising about 15 percent of the physician workforce, family physicians provided approximately 20 percent of physician office-based mental health visits in the United States between 1980 and 1999. This proportion has remained stable over the past two decades despite a decline in many other types of office visits to family physicians. Family physicians remain an important source of mental health care for Americans. *Subramanian A, Green LA, Fryer GE, Dovey SM, Phillips RL. Family physicians are an important source of mental health care. Am Fam Physician 2003;67:1422.*

20. Family Physicians Make a Substantial Contribution to Maternity Care: The Case of the State of Maine

Family physicians provided nearly 20 percent of labor and delivery care in Maine in the year 2000. A substantial proportion of this care was provided to women insured by Medicaid and those delivering in smaller, rural hospitals and residency-affiliated hospitals. As family medicine explores its future scope, research identifying regional variations in the maternity care workforce may clarify the need for maternity care training in residency and labor and delivery services in practice. *Cohen D, Guirguis-Blake J, Jack B, Chetty VK, Phillips RL, Green LA, Fryer GE. Family physicians make a substantial contribution to maternity care: The case of the State of Maine. Am Fam Physician 2003 68:405.*

21. Family Physicians Are an Important Source of Newborn Care

The Case of the State of Maine FPs provided 30 percent of inpatient newborn care in Maine in the year 2000. FPs cared for a large proportion of newborns, especially those insured by Medicaid and in smaller, rural hospitals where FPs also delivered babies. Family medicine's commitment to serve vulnerable populations of newborns requires continued federal, state, and institutional support for training and development of future FPs. *Cohen D, Guirguis-Blake J, Jack B, Chetty VK, Phillips RL, Green LA, Fryer GE. Family physicians are an important source of newborn care: The Case of the State of Maine. Am Fam Physician 2003 68:593.*

22. The U.S. Primary Care Physician Workforce: Minimal Growth 1980-1999

Growth in the primary care physician workforce (physicians per capita) in the United States has trailed the growth of the specialist physician population in recent years. This has occurred despite calls during the same period for increased production of primary care physicians and educational reforms focusing on primary care. *Biola H, Green LA, Phillips RL, Guirguis-Blake J, Fryer GE. The U.S. primary care physician workforce: Minimal growth 1980-1999. Am Fam Physician 2003 68:1483.*

23. The U.S. Primary Care Physician Workforce: Persistently Declining Interest in Primary Care Medical Specialties

A persistent, six-year trend in the choice of specialty training by U.S. medical students threatens the adequacy of the physician workforce of the United States. This pattern should be reversed and requires the attention of policy makers and medical educators. *Biola H, Green LA, Phillips RL, Guirguis-Blake J, Fryer GE. The U.S. primary care physician workforce: Persistently declining interest in primary care medical specialties. Am Fam Physician 2003 68:1484.*

24. The U.S. Primary Care Physician Workforce: Undervalued Service

Primary care physicians work hard, but their compensation is not correlated to their work effort when compared with physicians in other specialties. This disparity contributes to student disinterest in primary care specialties. *Biola H, Green LA, Phillips RL, Guirguis-Blake J, Fryer GE. The U.S. primary care physician workforce: Undervalued service. Am Fam Physician 2003 68:1486.*

25. The Ecology of Medical Care for Children in the United States: A New Application of an Old Model Reveals Inequities that can be Corrected

If equal and adequate access to health care for children in the United States is a goal, we are failing. That failing is most prominent in the setting where most children receive care and preventive services—the doctor’s office. *Dovey SM, Green LA, Phillips RL, Fryer GE. The ecology of medical care for children in the united states: a new application of an old model reveals inequities that can be corrected . Am Fam Physician 2003 68:2192.*

26. What People Want from Their Family Physician

The public wants and is satisfied by care provided within a patient-physician relationship based on understanding, honesty and trust. If the U.S. healthcare system is ever to become patient-centered, it must be designed to support these values and sustain, rather than fracture relationships people have with their primary physician. *Stock Keister MC, Green LA, Phillips RL, McCann J, Fryer GE. What people want from their family physician. Am Fam Physician 2004 69:2310.*

27. Few People in the United States Can Identify Primary Care Physicians

Almost one decade after the Institute of Medicine defined primary care, only one-third of the American public is able to identify any of the medical specialties that provide it, and only 17% were able to accurately distinguish primary care physicians from medical or surgical specialists and non-physicians. This lack of discrimination compromises the goal of achieving primary care for all and merits immediate attention. *Stock Keister MC, Green LA, Kahn NB, Phillips RL, McCann J, Fryer GE. Few people in the United States can identify primary care physician. Am Fam Physician 2004 69:2312.*

28. Chiropractors Are Not a Usual Source of Primary Health Care

Chiropractors are the largest source of office-based care in the United States that does not involve a physician, but people do not view chiropractors as primary providers of health care or advice. Unlike the care given by primary care providers, the majority of care provided by chiropractors is limited to musculoskeletal problems. *McCann J, Phillips RL, Green LA, Fryer GE. Chiropractors are not a usual source of primary health care. Am Fam Physician 2004 69:2544.*

29. The Importance of Having Health Insurance and a Usual Source of Care

The effects of insurance and having a usual source of care are additive. Efforts to improve health care access for all should provide a medical home and health insurance. *Phillips RL, Proser M, Green LA, Fryer GE, McCann J, Dodoo MS. The importance of having a health insurance and a usual source of care. Am Fam Physician 2004 70:1035.*

30. Family Physicians and the Primary Care Physicians Workforce in 2004

In 2004, there were 91,600 family physicians (FPs) and general practitioners (GPs) and 222,000 primary care physicians actively caring for patients, one for every 1,321 persons. These primary care physicians represent the largest and best-trained primary care physician workforce that has ever existed in the United States. *Green LA, Fryer GE, Ruddy GR, Dodoo MS, Phillips RL, McCann JL, et al. Family physicians and the primary care physicians workforce in 2004. Am Fam Physician 2005; 71:2260.*

31. The Family Physician Workforce: The Special Case of Rural Populations

People living outside metropolitan areas, especially those living in rural counties, depend on family physicians. Resolving the disparities in physician distribution nationwide will require solutions to make rural practice a viable option for more health care workers. *Ruddy GR, Fryer GE, Phillips RL, Green LA, Dodoo MS, McCann JL, et al. The family physician workforce: The special case of rural populations. Am Fam Physician 2005; 72:147.*

32. Physician Workforce: The Special Case of Health Centers and the National Health Service Corps

Federally funded health centers and the National Health Service Corps (NHSC) depend on family physicians (FPs) and general practitioners (GPs) to meet the needs of millions of medically underserved people. Policy makers and workforce planners should consider how changes in the production of FPs would affect these programs. *Phillips RL, Fryer GE, Ruddy GR, McCann JL, Dodoo MS, Klein LS, et al. Physician workforce: The special case of health centers and the national health service corps. Am Fam Physician 2005; 72:235.*

33. Who Filled First-Year Family Medicine Residency Positions from 1991 to 2004?

Graduates of U.S. allopathic schools have filled less than one half of the family medicine positions offered in the National Resident Matching Program (NRMP) Match since 2001. Overall fill rates in July have been relatively stable at approximately 94 percent. Family medicine has become reliant on international medical graduates (IMGs), who in 2004 made up 38 percent of first-year residents. *Klein LS, Ruddy GR, Phillips RL, McCann JL, Dodoo MS, Green LA. Who filled first-year family medicine residency positions 1997-2004? Am Fam Physician 2005; 72:392.*

34. Osteopathic Physicians and the Family Medicine Workforce

Historically, osteopathic physicians have made an important contribution to the primary care workforce. More than one half of osteopathic physicians are primary care physicians, and most of these are family physicians. However, the proportion of osteopathic students choosing family medicine, like that of their allopathic peers, is declining, and currently is only one in five. *Ruddy G, Phillips RL, Klein LS, McCann JL, Dodoo MS, Green LA, et al. Osteopathic physicians and the family medicine workforce. Am Fam Physician 2005; 72:583.*

35. Patterns of Visits to Physicians' Offices, 1980 to 2003

In the past quarter century, the number of office visits to physicians in the United States increased from 581 million per year to 838 million per year, with slightly more than one half of total visits since 1980 being made to primary care physicians. Most visits to primary care physicians were made to family physicians (FPs) and general practitioners (GPs) until the mid 1990s, when visits to general internists and general pediatricians exceeded visits to FPs and GPs. *Dodoo MS, Fryer GE, Green LA, Phillips RL, Ruddy R, McCann JL, et al. Patterns of visits to physicians' offices in the United States, 1980 to 2003. Am Fam Physician 2005; 72:762.*

36. Number of Persons Who Consulted a Physician, 1997 and 2002

Most people in the United States consult a general physician each year, and some see other subspecialists. However, the proportion of people consulting a general physician who sees adults and children appears to be declining. *Fryer GE, Dodoo MS, Green LA, Phillips RL, Ruddy R, McCann JL, et al. Number of persons who consulted a physician, 1997 and 2002. Am Fam Physician 2005; 72: 1007.*

37. Physician Assistant and Nurse Practitioner Workforce Trends

The physician assistant (PA) and nurse practitioner (NP) workforces have realized explosive growth, but this rate of growth may be declining. Most PAs work outside primary care; however, the contributions of PAs and NPs to primary care and interdisciplinary teams should not be neglected. *McCann JL, Phillips RL, O'Neil EH, Ruddy GR, Dodoo MS, Klein LS, Et al. Physician assistant and nurse practitioner workforce trends. Am Fam Physician 2005; 72:1176.*

38. Physician Workforce: Legal Immigrants Will Extend Baby Boom Demands

The baby boom generation will place large demands on the Medicare program and the U.S. health care system. These demands may be extended by a large legal immigrant population that will become Medicare- eligible soon after the baby boom generation does. The U.S. health care system should be

prepared for sustained stress from this aging population. *Dodoo MS, Phillips RL, Green LA, Ruddy R, McCann JL, Klein LS. Physician workforce: Legal immigrants will extend baby boom demands. Am Fam Physician 2005; 72:1459.*

39. Excess, Shortage, or Sufficient Physician Workforce: How Could We Know?

At least three models have been used to project the future physician workforce, and each produces different results. No physician workforce predictions can be relied on until there is more consideration of and agreement on desired health outcomes and what physicians must do to achieve them. *Dodoo MS, Green LA, Phillips RL, Fryer GE, McCann JL, Klein LS, et al.) Excess, shortage, or sufficient physician workforce: How could we know? Am Fam Physician 2005; 72:1670.*

40. Who Will Have Health Insurance in the Year 2025?

If current trends continue, U.S. health insurance costs will consume the average household's annual income by 2025. As health care becomes unaffordable for most people in the United States, it will be necessary to implement innovative models to move the system in a more equitable and sustainable direction. *DeVoe JE, Dodoo MS, Phillips RL, Green LA. Who will have health insurance in 2005: Am Fam Physician 2005; 72:1989.*

41. Medicare Part D: Who Wins, Who Loses?

The Medicare Part D prescription drug benefit aims to relieve the burden of out-of-pocket prescription drug costs for persons older than 65 years, but its effects will vary. Persons with low income and those without prior prescription coverage are projected to save the most, whereas those who lose employer-based coverage are predicted to pay more for their existing regimens. *Malya G, Bazemore AW, Phillips RL, Green LA, Klein LS, Dodoo MS. Medicare Part D: Who wins, who loses? Am Fam Physician 2006; 73:401.*

42. Out-of-Pocket Prescription Costs a Continuing Burden Under Medicare Part D

Of 29 million expected Part D beneficiaries, 6.9 million are projected to have annual out-of-pocket medication expenses greater than \$750. Accounting for one fourth of all Part D enrollees, these beneficiaries also are most likely to have high aggregate health care costs, putting them at continued financial risk unless additional policy options are considered. *Malya G, Bazemore AW, Phillips RL, Green LA, Klein LS, Dodoo MS. Out-of-pocket prescription costs a continuing burden under Medicare Part D. Am Fam Physician 2006; 73:402.*

43. Mind the Gap: Medicare Part D's Coverage Gaps May Affect Patient Adherence

Medicare Part D will lower medication expenditures for many older patients. However, its complex design incorporates a staggered series of cost-sharing mechanisms that create gaps in coverage and may have a negative impact on medication adherence. *Malya G, Bazemore AW, Phillips RL, Green LA, Klein LS, Dodoo MS. Mind the Gap: Medicare part D's coverage gaps may affect patient adherence. Am Fam Physician 2006; 73:404.*

44. Family Physicians Help Meet the Emergency Care Needs of Rural America

Ensuring access to emergency care in rural areas remains a challenge. High costs and low patient volumes make 100 percent staffing of rural emergency departments (EDs) by emergency medicine residency-trained physicians (EPs) unlikely. As rurality increases, so does dependence on family physicians (FPs) to provide quality emergent care. *Peterson LE, Bazemore A, Dodoo MS, Phillip RL. Family physicians help meet the emergency care needs of rural America. Am Fam Physician 2006; 73:1163.*

45. The Diminishing Role of FPs in Caring for Children

Nationwide, family physicians (FPs) deliver a smaller proportion of the outpatient care of children than they did 10 years ago. Millions of children depend on FPs for care. Family medicine should

reevaluate how it will contribute to the care of the nation's children. *Bazemore A, Phillips RL, Dodoo MS, McCann JL, Klein LS. The diminishing role of FPs in caring for children. Am Fam Physician 2006; 73:1518.*

46. Imperative Integration: Medical Care for Older Patients

The ecology of medical care changes for older people, with increases in usage of residential and institutional care, emergency departments, and home care. Care integrated across multiple settings, as is proposed for new models of primary care, is essential for the care of older patients. *Green LA, Mold JM, et al. Imperative integration: Medical care for the older patients. Am Fam Physician 2006; 74:1105.*

47. Improving the Use of Patient Registries in U.S. Primary Care Practices

Patient registries are necessary for high-quality health care, but even in innovative practices, their presence and utilization is inadequate. Registry uptake in primary care may be enhanced by improving the functionality of electronic health records (EHRs) and implementing payment models that reward registry use. *Balasubramanian B, Green L, Cohen D, Crabtree B, Tallia A, Isaacson N, Etz R, Dodoo M, Phillips R, Bazemore A. Use of patient registries in U.S. primary care practices. Am Fam Physician 2007; 75:1629.*

48. Will Medical School Expansion Help Diversify the Physician Workforce?

The racial/ethnic composition of U.S. medical schools does not reflect the U.S. population. With proper planning, the current medical school expansion could improve physician diversity and reduce health disparities. *Lindsay D, Bazemore AW, Bowman R, Petterson S, Green LA, Phillips RL. Will medical school expansion help to diversify the physician workforce? Am Fam Physician 2007; 76:38.*

49. Rural Origins and Choosing Family Medicine Predict Future Rural Practice

The shortage of physicians in U.S. rural practice may impact access to health care for one in five citizens. Two medical student characteristics that predict eventual practice in rural settings are clear: being born in a rural county and choosing a residency in family medicine. *Hyer J, Bazemore A, Bowman R, Zhang X, Petterson S, Phillips R. Rural Origins and Choosing Family Medicine Predict Future Rural Practice. Am Fam Physician 2007; 76:207.*

50. Medical School Expansion: An Immediate Opportunity to Meet Rural Health Care Needs

The first expansion of allopathic medical education in 35 years is under way; this could eliminate rural physician shortage areas if students more likely to practice in rural areas are preferentially admitted and supported. *Hyer J, Bazemore A, Bowman R, Zhang X, Petterson S, Phillips R. Medical School Expansion: An Immediate Opportunity to Meet Rural Health Care Needs. Am Fam Physician 2007; 76:207.*

51. Behavioral Change Counseling in the Medical Home

Health-related behavioral counseling can and should be a central offering in the medical home. Primary care practices currently address unhealthy behaviors with their patients, but most practices lack the integrated approaches needed to effectively change these behaviors. Revisions in practice and financing are necessary to fully realize this capacity, which could affect the millions of patients served by the largest health care delivery platform in the United States. *Balasubramanian BA, Cohen DJ, Dodoo MS, Bazemore AW, Green LA. Behavioral Change Counseling in the Medical Home. Am Fam Physician 2007; 76:1472.*

52. Why There Must be Room for Mental Health in the Medical Home

Most people with poor mental health are cared for in primary care settings, despite many barriers. Efforts to provide everyone a medical home will require the inclusion of mental health care if it is to succeed in improving care and reducing costs. *Petterson S, Phillips RL, Bazemore A, Dodoo MS, Zhang X, Green LA. Why There Must be Room for Mental Health in the Medical Home. Am Fam Physician 2008; 77:757.*

Washington Primary Care Fora.

The Graham Center regularly holds Washington DC Primary Care Fora at the Cosmos Club. These breakfast forums draw 20-40 individuals from government (HRSA, AHRQ), academia (Georgetown University, George Washington University), professional societies (AMA, ACP, AAP, AAFP, nursing, psychology), and advocacy groups. RWJF Policy fellows often attend, and there are usually a few attendees from out of town. The series has been so successful that it inspired the US Agency for Healthcare Research and Quality to develop a parallel series of forums and we now coordinate schedules, topics and invitation lists.

Forum	Speaker	Topic
#1	Dr. Robert Graham	Primary Care and Improved Health Care for People
#2	Dr. John Eisenberg	The Importance of Primary Care and AHRQ
#3	Dr. Mary Wakefield	Medicare funding for GME
#4	Representatives from the political campaigns of Bill Bradley and Al Gore	Implications of their candidate's health policies for primary care
#5	Richard D. Lamm	A New Moral Vision of Health Care
#6	Donald L. Weaver, M.D.	Reauthorization of NHSC: Building on a Model that Works
#7	Karen Ignagni	Primary Care: The View from the Health Plans
#8	Richard Boxer and Keith Hennessey	Primary Care and The 2000 Presidential Campaign
#9	Dr. Ken Shine	The IOM's Quality Initiatives and Implications for Primary Care
#10	Stephen Crane Rosemarie Sweeney Roxanne Fulcher, Jackie Noyes Bob Doherty	Panel Discussion: Primary Care Priorities in 2001
#11	Dr. David Blumenthal	The Coming Crisis in Health Care Costs: The Role of Primary Care
#12	Dr. Jordan Cohen Anne Esposito	Health Services Research, Appropriations and the Agency for Healthcare Research and Quality: Isn't it Time to Billionize AHRQ?

#13	Congressmen Jim McCrery and Jim McDermott	Universal Coverage – Ever in America?
#14	Dr. Mary Jane England	A Business Perspective on Health and Productivity
#15	Gregg S. Meyer, MD, MSc	Federal Quality & Patient Safety Initiatives
#16	Scott Whitaker	Immediate Health Policy Priorities of the Bush Administration: Implications for Primary Care
#17	Jonathan Temte, M.D., Ph.D. Eric Bass, M.D., M.P.H.	Needles and Haystacks: The reality of identifying bioterrorism events in medical practice
#18	Thomas J. Higgins Gail Shearer	Why Not Universal Coverage in 2002?
#19	Gregory Pawlson, M.D., M.P.H.	Will We Ever Know How Well Primary Care is Doing?
#20	Victoria Wachino, Associate Director	The Current Economic Situation: Implications for Medicaid and the State Childrens’ Health Insurance Program
#21	Stephen C. Crane, Ph.D., M.P.H. Sharon K. Kulesz, PA-C	Trends and Issues in the Physician Assistant Profession: The Team Approach to Primary Care
#22	Carl J. Getto, M.D.	Too Big, Too Small, Just Right – The Fairy Tale of GME
#23	Gerard F. Anderson, Ph.D. Jim Mold, MD, MPH	What the Health Care System Can Do to Help Primary Care Doctors Treat Patients with Chronic Conditions
#24	Fitzhugh Mullan, M.D.	Big Doctoring in America: The Ecstasy and the Agony of Primary Care
#25	Captain Kerry P. Nessler, R.N., M.S.	The Bureau of Health Professions: Its Course and Initiatives
#26	Alan R. Nelson, MD, MACP	Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare
#27	Carolyn McCullough, MA, RN	Truth and Fiction About the Nursing Crisis: Some Current Policy Options
#28	Susan M. Dovey, PhD David C. Hsia, JD, MD, MPH	Primary Care Contributions to Patient Safety: Where Should We Put Our Efforts?
#29	Paul B. Ginsburg, Ph.D.	Payment and the Future of Primary Care
#30	David C. Kibbe, M.D., M.B.A.	The Open Source HER: Questions and Answers

#31	Kurt C. Stange, M.D., Ph.D.	Why Should Anyone in D.C. Care about Primary Care
#32	James C. Martin, M.D., FAAFP	The Future of Family Medicine
#33	Sean R. Tunis, MD, MSc. William C. Rollow, MD, MPH	What CMS is Thinking About How to Help Primary Care Be Better?
#34	Harold Sox, MD Mary T. Herald, MD FACP	The Future of General Internal Medicine
#35	Michael Suk, MD, JD, MPH	Outdoor Recreation in America Today: At the Front Lines in the Battle for Public Health
#36	Roger J. Bulger, M.D.	The Troubled Relationship Between Academic Health Centers and Primary Care
#37	Susan M. Dovey, PhD	Computerization of Front Line Practices: Success in New Zealand
#38	Ann Louise Kinmonth MA, MB, Bchir, MSc, MD	Americanization of the UK Health System: Risks & Benefits
#39	Judy Feder, Ph.D.	The Election and the Uninsured
#40	Ed H. Wagner, M.D., M.P.H., F.A.C.P.	Improving The Care of People with Chronic Illnesses
#41	Janet Corrigan, Ph.D. Howard Rabinowitz, MD	The Future of Rural Health Care: Focus on Workforce
#42	Steven Woolf, M.D., M.P.H.	The Health Impact of Resolving Racial Disparities
#43	Matt Salo Dan Hawkins	Medicaid Realities and Responses: Perspectives of Stats and the Healthcare Safety-Net
#44	Paul Ginsburg	Healthcare in America 2005, Initial Findings from HSC's Most Recent Community Site Visits
#45	Marc C. Rattray, MD	Improving Value: Clinical Performance Measurement and Improvement
#46	Dr. Edward Hill Dr. David Kibbe Linda Magno Dr. Karen DeSalvo	Panel Discussion: After Katrina: Healthcare Infrastructure in the Gulf
#47	Eric Hart, MD	The Workplace: A Medical Home Away From Home
#48	Janelle Guirguis-Blake, MD Charles Ellington, MD, JD	Malpractice Reform: Evidence for Reforms that Make a Difference

#49	Francois De Brantes	Ways to Fund the Primary Care Medical Home Differently Than We Do Now
#50	Ichiro Kawachi, MD, PhD	What Is the Role of Primary Care in Improving Population Health?
#51	Ann K. Peton & Ray E. Stowers, DO	Visualizing Geographic Implications of Policy Development for America's Family Physicians & Serving the Appalachian Region and Beyond
#52	Andrew Bazemore, MD, MPH	New Strategies for Depicting Primary Care and Place
#53	Scott Shipman, MD, MPH	Through a Child's Eyes: Maldistribution of the Child Physician Workforce
#54	Helen Darling & Robert Berenson, MD	Powerful Partnership: Can Big Business and Primary Care Be Solutions for Each Other?
#55	Greg Feero, MD, PhD	How Will Primary Care Manage the Genomic Revolution?
#56	Rachael Bornstein Elizabeth K. Ziegler	What Will the Congressional Health Caucuses be Addressing in 2008?
#57	Mary Jane England, MD Bob Phillips, MD, MSPH	Making Room for Mental Health in the Medical Home

Larry A. Green Visiting Scholar Program. The Graham Center offers a visiting scholar program, which provides outstanding junior scholars with an immersion experience in health policy while broadening and enriching Graham Center ideas and projects. One of the goals of the scholars program, confirmed by testimonials from past scholars, is to seed primary care with leaders and researchers who experience and have an understanding of evidence-based policy development. The internship program was officially renamed the Larry A. Green Visiting Scholar Program on September 30, 2006.

Freddie Chen	Ginger Ruddy
Bob Phillips	Amar Duggiarla
James Toombs	Hillary Johnson
Marguerite Duane	Grace Kuo
Erika Bliss	Ahmad von Schlegell
Dan Merenstein	Lorraine Wallace
Jennifer DeVoe	Margaret Eberl
Nerissa Koehn	Denise Young
Kenny Fink	Kristine McCoy
Katrina Donahue	Gridhar Mallya
David Krol	Lars Peterson
Brent Jaster	Seth Flagg
Sandy Lai	Jay Crossen
Virigilo Licon	Tamara Miller
Cori McClaughry	Ron Chacko
Sarah Morgan	Ge Lin
Robin Gauld	Lisa Minich
Katrina Miller	Jen Hyer
Andrew Bazemore	Stephanie Seek
Chien-Wen Tseng	Kristin Anderson
Holly Biola	Bob Bowman
Asha Subramanian	Djinge Lindsay
English Gonzalez	Ngairse Kearse
Allegra Melillo	Yoshi Laing
Laura Sterling	Eric Clarkson
Beth Wilson	Shannon Bolon
Jennifer Buescher	Sean Lucan
Brett Cauthen	Seema Modi
Donna Cohen	Eddie Turner
John Smucny	Ruth McDonald
Rodney Samaan	Paul Grinzi
Amanda Morris	Karen Wildman
Valerie Reese	Jessica McIntyre
Elizabeth Dowling	Rebecca Etz
Mary Stock Keister	Lenny Lesser
Stacey Bank	Sarah Lesko

Fellowship Program. The Graham Center and Georgetown University co-sponsor a 1-year fellowship in health policy and faculty development. Fellows work with the Graham Center staff to address health policy questions of interest, culminating in a project for national dissemination. Past fellows serve on faculty at Howard University, the University of Washington, University of Illinois, and one serves as the director of the AHRQ Center for Primary Care, Prevention and Policy.

Fellow	Research Interests
David Meyers, MD	Patient Safety, Access to Care, Copay effects on care
Rachael Consoli, MD	Medical Errors
Janelle Guirguis-Blake, MD	Family Physicians Provision of Maternity Care
April Everett, MD	State Funding of Family Physician Training Programs
Charles Ellington, MD	Malpractice Reform
Ginger Ruddy, MD	Access and Community Health Center Workforce
Krishnan Narasimhan, MD	The impact of family physicians in local economies; Rebuilding and improving primary care access after Hurricanes Katrina and Rita
Anne Gaglioti, MD	Obesity and Primary Care; Health of the incarcerated

Appendix

Robert Graham Center Staff

2008

Robert Phillips, Jr., MD, MSPH
Director

Robert L. Phillips, Jr., MD, MSPH graduated from the University of Florida College of Medicine in Gainesville, Florida with honors for special distinction. He did residency training in family medicine at the University of Missouri-Columbia where he remained for a research fellowship, completing a Masters of Science in Public Health. He has served on the American Medical Association's Council on Medical Education and as the President of the National Residency Matching Program. His research interests include physician-health system interactions and their effects on quality of care, geographic information systems, and collaborative care processes. He currently serves as Vice Chair of the Council on Graduate Medical Education. He is on the faculty of the Department of Family Medicine at Georgetown University, in the School of Public Health at George Washington University, and practices in Fairfax, Virginia.

Andrew Bazemore, MD, MPH.
Assistant Director

Andrew Bazemore, M.D. joined the Graham Center as its Assistant Director in July 2005. Prior to his current position, Dr. Bazemore was an Assistant Professor in the University of Cincinnati's Department of Family Medicine, where he also completed his residency training and faculty development fellowship. As a member of the Research Division as well as Director of the International Health Program, Dr. Bazemore developed interests in access to care for underserved populations both domestically and internationally, and on the application of geographic information systems to the study of the U.S. safety net.

A member of the American Academy of Family Physicians, he will practice and teach residents in Fairfax, VA, and serve on the faculty of the Department of Family Medicine at Georgetown University. Dr. Bazemore received his B.A. degree from Davidson College, his M.D. from the University of North Carolina, and completed his M.P.H. at Harvard University.

Martey Dodoo, Ph.D.
Senior Economist

Martey S. Dodoo is the economic and demographic analyst at The Robert Graham Center. He has held previous economist and statistician positions with the PSC: Western Integrity Center, New Jersey Department of Health and Senior Services, and MDRC in New York. He has also served on the Economics faculty of Pennsylvania State University and the University of Ghana and has also taught courses in Statistics and Research Methods.

His current research interests are in health access and coverage, workforce, labor and demographic economics, program evaluation, patient safety and health quality, utilization, cost and fiscal impact analysis. He also has interests in the application of micro-economic modeling and econometrics, multilevel or HLM modeling techniques, and cost-benefit analysis in health care.

He earned his Ph.D. (Demography and Economics) degree from the University of Pennsylvania. He also has graduate degrees in Economics from the University of Western Ontario (Canada), the University of Ghana, and an undergraduate degree in Biochemistry. He is a member of the International Health Economics Association, the Society of Government Economists, and the Society for Clinical Data Management.

Stephen Petterson, Ph.D.
Senior Health Policy Researcher

Stephen Petterson is a Senior Health Policy Researcher at Robert Graham Center. Previously, as a sociologist and social statistician he was on the faculty at the University of Virginia and a researcher at the Southeastern Rural Mental Health Research Center. He has taught courses in statistics, welfare policy, problems of urban life and sociology of work.

His research interests are in national and state health policy, access to care and health insurance, the relationship between primary care and mental health treatment and global health. He has a particular interest in understanding the barriers faced by disadvantaged populations in the health care system.

He earned his Ph.D. (1993, Sociology) from the University of Wisconsin and an undergraduate degree from Haverford College (1984, Sociology and Anthropology).

Imam Xierali, Ph.D.
Health Geographer and Research Scientist

Imam Xierali is a Health Geographer and Research Scientist at the Robert Graham Center. Previously, he was a Statistical Analyst at Georgia Division of Public Health, actively participating in enterprise GIS management and applying Geographic Information Systems and spatial statistics into public health policy research.

His research interests are in spatial disparities in health and health care, geospatial technologies for health applications, statistical modeling, and spatial statistics. He is particularly interested in combining geospatial analytical tools and statistical modeling to study the spatial relationships between health and environment, health outcomes and primary care access and delivery.

He earned his Ph.D. in geography (2006) and M.A. in GIS (2004) from the University of Cincinnati. He also has an M.A. in political science (2003) from the University of Cincinnati. He is a member of the Association of American Geographers (AAG), American Public Health Association (APHA), Georgia Public Health Association (GPHA), and Pi Sigma Alpha.

Larry Green, MD
Senior Scholar in Residence

Larry A. Green, M.D. is Senior Scholar in Residence at The Robert Graham Center: Policy Studies in Family Medicine and Primary Care in Washington, D.C. He completed his residency in family medicine at the University of Rochester and Highland Hospital and entered practice in Arkansas in the National Health Services Corps, after which he joined the faculty at the University of Colorado. Dr. Green was the Woodward-Chisholm Chairman of the Department of Family Medicine at the University of Colorado for 14 years, and he continues to serve on the faculty of the University of Colorado, where he is Professor of Family Medicine and Director of the National Program Office for Prescription for Health. Prescription for Health is a five-year practice-based research initiative

launched in 2002 that is focused on health behavior change, sponsored by the Robert Wood Johnson Foundation and the Agency for Healthcare Research and Quality. Much of his career has been focused on developing practice-based, primary care research networks. Dr. Green practices as a certified Diplomate of the American Board of Family Practice. He is a member of the American Academy of Family Physicians, the Society of Teachers of Family Medicine, the World Organization of Family Doctors, and the North America Primary Care Research Group. Dr. Green received his B.A. degree from the University of Oklahoma and his M.D. from Baylor College of Medicine, Houston, Texas. He is a member of the Institute of Medicine.

Bridget Teevan, MIS
Office and Research Coordinator

Bridget Teevan joined the Graham Center as Office and Research Coordinator in April 2007 following the completion of her master's degree in international studies. She has particular interests in global health policy and decision theory. In addition to coordinating the center's daily operations, Bridget manages the Robert Graham Center's research portfolio and administers the scholars and fellows programs.

Outside of work, Bridget continues her academic career. She will soon complete a graduate certificate in Epidemiology at the University of North Carolina School of Public Health, which she plans to apply to a degree in epidemiology in the future.

Bridget received a B.S. in Chemistry (1997) from Florida State University and a Master of International Studies (MIS) from North Carolina State University (2006). She is a member of Phi Beta Kappa.

Janelle Gillings
Office Assistant

Janelle Gillings joined the Graham Center as the Office Assistant in October 2007. Janelle received a B.S. in Biological Anthropology (2007) from Emory University. She is currently pursuing an MPH in Health Policy at the George Washington University.

Acknowledgement: We would like to thank McKenzie Anderson for her hard work in compiling the abstracts for this compendium.