

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

Synopsis of Publications

The First Four Years  
1999-2003

## Preface

The purpose of the Robert Graham Center is to bring a family practice and primary care perspective to policy deliberations at federal, state and local levels. Since it opened in June of 1999 in Washington, D.C., the Center has functioned as a division of the American Academy of Family Physicians, with editorial independence, producing various publications. During this initial period, the work of the Center largely focused on the infrastructures necessary to achieve the primary care function, the scope of family practice, medical errors, and the need for universal inclusion of all the people of the country in the health care system. An initial staff of five individuals was assembled by mid 2000, and this team worked together during the four-year period covered by this report. During this initial phase of development and implementation of the Center, 32 interns, 3 fellows, and 6 scholars in residence, listed herein, also made important contributions to the work of the Center through their insight and hard work.

The purpose of this document is to provide brief summaries and a synopsis of manuscripts published in the first four years of the Center's existence, in twenty two journals and one-pagers published in *American Family Physician*.

## Infrastructures

A. 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 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.

B. Green LA. Rhetoric, Reality, and Revolution in Family Practice and Primary Care. *Healthcare papers*, 199;1:57-60.

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.

C. Green LA. Putting Practice into Research: A 20 Year Perspective. *Fam Med* 2000;32:396-7.

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.

D. Mold JW and Green LA. Primary Care Research: Revisiting its Definition and Rationale. *J Fam Pract* 2000;49:206-208.

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.

E. 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.

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.

F. 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.

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.

G. Green LA, Dovey SM, Fryer GE. It Takes a Balanced Health Care System to Get it Right. *J Fam Pract* 2001;50:1038-9.

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?"

H. Dovey SM, Green LA, Phillips RL, Fryer GE. The Delicate Task of Workforce Determination. *Eff Clin Pract* 2002;5:95-7.

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.

I. 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.

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.

J. 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.

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.

K. Phillips RL, Fryer GE, Green LA. GME Financing Reform: The Saga Continues. *J Gen Int Med* 2002;17:311-312.

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.

L. 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.

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.

M. 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.

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.

N. 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.

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.

### Scope of Practice

A. 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.

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.

B. Merenstein D, Green LA, Fryer GE, Dovey SM. Shortchanging Adolescents: Room for Improvement in Preventive Care by Physicians. *Fam Med* 2001;33:120-3.

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.

C. Chen FM, Rhodes LA, Green LA. Family Physicians' Experiences of Their Fathers' Health Care. *J Fam Pract* 2001;50:762-766.

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*.

D. 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.

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.



E. 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.

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.

F. 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.

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

G. Phillips RL and Green LA. Making Choices About the Scope of Family Practice. *JABFP* 2002;15:250-254.

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.

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

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.

I. 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.

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.

#### Universal Health Care Coverage

A. 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.

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.

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

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.

C. 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.

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.

D. 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.

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.

#### Medical Errors and Patient Safety

A. 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.

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.

B. Dovey SM, Meyers DS, Phillips RL, Green LA, Fryer GE, Galliher JM, Kappus J, Grob P. A Preliminary Taxonomy of Medical Errors in Family Practice. *Qual Saf Health Care* 2002;11:233-238.

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.

C. 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.

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.

## Cross-cutting and Other Issues

A. Green LA, Graham R, Stephens GG, Frey JJ (The Keystone Quartet). A Preface Concerning Keystone III. *Fam Med* 2001;33:230-1.

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.

B. 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.

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.

C. Green LA. The View from 2020: How Family Practice Failed. *Fam Med* 2001;33:320-4.

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.

D. 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.

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 21<sup>st</sup> 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.

E. Green LA, Fryer GE, Yawn BP, Lanier D, Dovey SM. The Ecology of Medical Care Revisited. N Eng J Med 2001;344:2021-2025.

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.

F. Green LA, Lanier D, Yawn BP. Reply to Letters to the Editor. N Eng J Med 2001;345:1212.

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.

G. 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)

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.

H. Gauld R. Patients' Rights in the United States: From "Down-under" the Situation Seems Upside-Down. *NZ Med J* 2002;115:55-6.

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 re-enforced an "us versus them" mindset, rather than a united commitment to deliver appropriate health care.

I. 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.

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.

J. Green LA and Fryer GE. Family Practice in the United States: Position and Prospects. *Acad Med* 2002;77:781-9.

Family practice became the 20<sup>th</sup> 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.”

K. 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.

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.

L. 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.

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.